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STATE DOCUMENTS

STATE OF MONTANA

Fourth Annual Report

OF THE

Industrial Accident Board

For the Twelve Months Ending June 30th

1919



Workmen's Compensation Act

In Effect July 1st, 1915 as to

Compensation Provision

MEMBERS OF THE BOARD

A. E. Spriggs, *Chairman*

Geo. P. Porter, *State Auditor*

W. J. Swindlehurst, *Commissioner of Labor*

‘‘SAFETY FIRST’’



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ADMINISTERING:

Workmen's Compensation Act
Safety Inspection Laws
Boiler Inspection Laws
Stationary Engineers' License Law
Quartz Mine Inspection Laws
Coal Mine Inspection Laws
Alien and Illiterate Employees Act

“SAFETY FIRST”

Members of the Industrial Accident Board

A. E. SPRIGGS,
Chairman

GEO. P. PORTER,
State Auditor and Commissioner of Insurance

W. J. SWINDLEHURST,
Treasurer of Board and Commissioner of Labor

OFFICIAL STAFF

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Elsie Abrahamson, Claim Clerk	Florence Gebauer, Bookkeeper
Sadie Bryson, Statistical Clerk	Helen Sanders, Payroll Clerk
Edna Leopold, Stenographer	Pearl Florence, Stenographer

BUREAU OF SAFETY INSPECTION

INSPECTOR QUARTZ MINE DEPARTMENT
W. B. Orem, Butte

INSPECTOR COAL MINE DEPARTMENT
Geo. Griffin, Helena

INSPECTORS BOILER DEPARTMENT
Richard Moran, Northern District, Helena
R. A. Prater, Southern District, Billings
F. J. Coburn, Western District, Butte
George Redding, Central District, Helena

E. B. Kennedy, Clerk of the Bureau

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Letter of Transmittal.

OFFICE MONTANA INDUSTRIAL ACCIDENT BOARD.

Helena, Mont., July, 1919.

To His Excellency, Samuel V. Stewart,
Governor of the State of Montana.

Sir:

Pursuant to Section 25 (a) of Chapter 96, Session Laws of 1915, as amended by the Session Laws of 1919, we have the honor to herewith submit our Fourth Annual Report, covering the administration of the Workmen's Compensation Act by the Industrial Accident Board for the twelve months ending June 30, 1919, with a brief review of the operations of the department since the compensation feature of the Law became effective on July 1, 1915, four years ago.

In the submission of this report the Board has, in conformity with the generally accepted practice, kept in mind the fact that it should be such as to furnish information to the people of the state, as directed by the Act, and has, therefore, included such statistical material and data as it is hoped will prove of general interest.

Very respectfully,

INDUSTRIAL ACCIDENT BOARD.

A. E. SPRIGGS, Chairman,
GEO. P. PORTER,
W. J. SWINDLEHURST.

The Shade's Lament.

By WILL AIKEN.

I left a widow back there on earth,
 And a couple o' tow-haired tykes;
I loved 'em for all my life was worth,
 And I satisfied all their likes;
But I learned a lesson
 Through Luck or Fate;
That I wa'nt right wise—
 But I learned too late!

'Twas expert work, with an expert's pay
 That I done the whole week through,
And I went back home at close of day—
 With the joy in my heart time flew.
But I learned a lesson
 Through Luck or Fate;
That I wa'nt right wise—
 But I learned too late!

I'd done my job for so many years
 That I'd got, maybe, careless-like;
And I took one chance that I'd beat the gears—
 But I saved my partner, Mike.
So I learned a lesson
 Through Luck or Fate;
That I wa'nt right wise—
 But I learned too late!

The wife and the kids were treated well
 By the Compensation Law,
But I'd like to be back with them a spell—
 If I might, life would have no flaw.
But I learned a lesson
 Through Luck or Fate;
That I wa'nt right wise—
 But I learned too late!

And I'd like to go back to the camp, if I durst,
For to preach this doctrine of SAFETY FIRST!

Report of the Industrial Accident Board of the State of Montana.

FOURTH YEAR.

In accordance with the provisions of Chapter 96 of the Session Laws of 1915, as amended by the Legislative Session of 1919, the Montana Industrial Accident Board herewith submits its Fourth Annual Report, covering the administration of the Montana Workmen's Compensation Act for the twelve months ending June 30, 1919, including a brief review of the operations of the department since the Law became effective on March 8, 1915, over four years ago.

On July 1st, one year ago, the Board compiled and published a 343-page report, giving in detail the experience of the third year's operation of the Law, including a brief review of the preceding two years' work. This report on account of economical reasons was only sent to those who requested it and resulted in a circulation of about five thousand copies, which elicited much favorable comment. As a consequence the style and form employed in that report, which was so generally approved by the people of the state, has been followed to some extent in this one in the matter of arranging financial and statistical tables. Portions of the text used in it have been amplified and brought up to date for this one. However, all matter descriptive of the reasons causing the enactment of the Law, and also relating to the organization period of the Board's existence, as well as all data that apparently served its purpose, including a great many tables and statistical statements, has been eliminated in compiling this report. Especially is this true as to articles explaining the beneficial effects of the Law which were gone into in considerable detail in the last report.

This report proposes continuing the work from where the third report left it to the extent of presenting the record of the continued efforts of the Board and the results of its labors. The financial condition of the department is submitted in detail, showing why, when and where every dollar

that has been paid out has been expended, not only in the expenditures relating to the administration of the Act but in the payment of compensation claims as well. It also shows in condensed form a small portion of the interesting statistical facts and figures compiled in the records of the compensation department of the state government.

One of the features of last year's report was the one hundred and seventy-five pages devoted to an exhaustive comparison of the Montana Compensation Act with that of other states; also explanatory data covering the different angles and beneficial features of the Workmen's Compensation Laws as compared to the old personal liability system; also the reproduction of over one hundred photographs of industrial plants operating in the state.

These features have been entirely eliminated from this report and instead the Board has designed this report to serve somewhat in the nature of a text book for employers and employees operating under the Law in that it will carry a synopsis of the different laws administered by the Board and also the text of each law, as well as the rules and regulations governing procedure under the Board, and financial and statistical tables that will, taken in their entirety, the Board anticipates, serve as a reference book for those interested in the operation of the Workmen's Compensation Law in this state.

In compliance with this idea and in response to many demands, and, furthermore, in the interest of economy, the text of the laws administered by this department has been reproduced in the last section of the report in such form as to be segregated by the publisher and bound in pamphlet form for general distribution and use, thus requiring only one composition charge.

This course was not only justified but was deemed necessary and wise on account of the pamphlet edition of the Compensation Law, printed four years ago, being exhausted, and also because the Law was amended by the last Legislature. A similar condition obtains in the matter of the quartz and coal mining laws, which have been amended in many particulars since the last compilation was made and published in pamphlet form eight years ago, which edition was exhausted over a year ago. The boiler inspection law

was likewise amended by each of the last three legislatures, yet no new pamphlet copies of the law as amended have been printed.

Therefore, the last half of the report is made up of the codified laws brought up to date, segregated under proper form and headings, consisting of the Workmen's Compensation Law, Chapter 96, Session Laws of 1915, as amended by the Session Laws of 1919, and the quartz and coal mining laws as amended up to date; also the laws governing the inspection and operation of steam boilers and the licensing of steam, air and electric engineers, as amended up to date; also the law, enacted by the last Legislature, requiring employers of fifty or more men to report the number of aliens and illiterates.

These laws are all administered by the Industrial Accident Board, and taken in their entirety represent all our statutory law on the question of safety and safety provisions. Hence it is only reasonable that all of these laws should be codified and assembled under one cover.

The tables submitted covering accidents are classified according to industry, the plan of compensation under which the employer operates and the extent and nature of injuries suffered by the workmen, and will be found to cover every angle of the Law's operations from the viewpoint of the employee as well as of the employer.

In addition to the text of the various laws mentioned and synopsis of same, and rules of the Board, and the various tables selected, will be found the individual reports of the quartz and coal mine inspectors, and boiler inspectors, as well as specific data covering the record of each of the three plans authorized by the law, as well as general explanatory data regarding the law and its operation, which the Board hopes will prove of value to the people of the state who are interested in Workmen's Compensation.

THEORY AND LOGIC OF COMPENSATION.

Mr. Justice Holloway of the Supreme Court, in preparing the unanimous opinion of the court in the Butte city case, and in referring to the theory and principle of compensation, said:

“Workmen’s insurance and compensation laws are the products of the development of the social and economic idea that the industry, which has always borne the burden of depreciation and destruction of the necessary machinery, shall also bear the burden of repairing the efficiency of the human machine without which the industry itself could not exist.”

There is little to be added to the Judge’s comment except by-way of elaboration. The theory as well as the basic principle underlying Workmen’s Compensation Laws is that the cost of accidents occurring in any industry shall become a part of the cost of production in that industry to the end that the consumer of the product may eventually bear the cost of same. This theory contemplates that the loss due to accident injury is just as logically a part of the expense of the production of that commodity as is any other loss which might be occasioned either by the destruction of machinery or by the breaking or wearing out of tools, or by their replacement, and should become an acknowledged part of the ordinary overhead charge attending production; that injured workmen are an inseparable part of the expense that goes into the production of the article, through the production of which the injury is occasioned, and should not be segregated from it.

By such reasoning the conclusion is reached that compensation paid to workmen injured through an accident “arising out of and in the course of the employment” bears the same relationship to the cost of producing the article as does any other cost or expense, whether it be wages, raw material, broken machinery or new installation, or loss of equipment. It all means that the industry instead of the individual or the employer shall bear the inevitable unquestionable hazard of production, and that a laborer suffering accidental injury in the course of his employment shall receive some remuneration for the financial loss he suffers without regard to the cause of the accident, and that the final burden of the injury shall be considered and treated as a necessary and incidental expense of the business.

This plan of social right and justice, which may be accepted as a modern doctrine, simply means that the product and not the employer or employee shall be charged with the loss due to accidental injury, whether it be the man or the machine that gives way under the stress of enforcing conditions surrounding the operation.

In recent years our courts have held with marked unanimity that personal injury losses, not intentionally incurred, arising out of and in the course of the production of the article, are as legitimately an element of the fair money cost of the production of the commodity as are expenditures for material, machinery or wages. This new doctrine is a pronounced innovation in that the product that is being produced shall be charged with the cost of an injury to a workman, regardless of where the fault may lie, and further that the victim of the accident shall recover for the injury received, even though it may be caused by his own contributory negligence, or the negligence of his fellow workers, or through the inherent risk of the employment.

Under the old system recovery was based on the question of fault and successful recovery by the injured workman was difficult and expensive through the necessary, tedious medium of court procedure. Statistics show that only one injured workman out of ten that carried the question of damages to the courts recovered, and as only one out of twenty sought relief in the courts, it is evident that only one out of every two hundred injured workmen received remuneration.

The injustice of such a system is very apparent. Even in cases where the negligence and fault of the employer was, comparatively speaking, beyond dispute, recovery was made impossible by court rulings, which while grounded on established statutory court provisions, were decidedly out of harmony with our present day progressive humanitarian conception of justice. Against such an uncertain and unsatisfactory method we now have the fulfillment of the great objective of the new system or law in that it affords, without recourse to litigation, prompt and specific remedy to all injured workmen in the shape of compensation for disability resulting from industrial injury.

Instead of class hatred, generated through tedious uncertain litigation, the new system recognizes the right of the workman without discrimination to be succored and compensated from the hour of his injury, without either litigation to enforce a right or the making of a humble plea to charity. On the contrary the principle governing the new law makes compensation his vested right and a part of his earnings belonging to him by virtue of the law designed for the protection of himself and those dependent upon his earnings.

OBJECT OF COMPENSATION LAWS.

The passage of the Montana Workmen's Compensation Law in February, 1916, caused the introduction into the governmental affairs of the state of an economic principle, representing to a great extent the progress and growth of modern day social conditions, in that it constituted a new and radical departure from all existing business methods in dealing with personal injuries resulting from industrial accidents. It clearly indicated a changed condition in the status of public opinion that had theretofore governed the relation obtaining between Montana's employers and employees.

There is now no dispute as to the economy, justice and wisdom of the enactment of that law which had for its object the awarding of compensation to the unfortunate victim of industrial accidents, regardless of where the fault might rest.

Governor Stewart, and through his recommendation, the members of the Fourteenth Legislative Assembly, decided that the enormous waste attending the old method of treating industrial accidents was little short of criminal. They realized, as well as did the earnest-thinking, forward-looking people of our great state, that under the operation of the old common law system, with its tedious uncertainty, the rule was long-drawn-out litigation, preventing relief at the time of greatest need, economic waste in lawyers' fees and court costs, disturbance of business and creation of hostility between employer and employee.

They familiarized themselves with the statistical record which disclosed that the great majority of industrial accidents occurred outside of the line of negligence or fault of

the employer, and that as a consequence no relief was possible for the workman who was the unwilling, unwitting victim of accidental misfortune. They appreciated the fact that in the consideration of ordinary industrial accidents it was next to impossible to determine where the fault or negligence should lie, or what was the proximate cause to be held responsible for the injury, and that nearly a third of the time of our courts was occupied in trying to determine the question of who was to blame for accidents.

They understood that the inevitable result of such court procedure was that in the majority of suits either an injustice was done the employer by the natural feeling of the average jury to sympathize with the injured employee, or that the court under well established rules of law by taking meritorious cases from the jury, caused many a widow to be turned away from the bar of justice without a dollar to a life of possible want and misery.

Their observations fully acquainted them with the operation of the old worn-out common law system which permitted continual abuses, as was too often evidenced by sympathetic juries rendering excessive damage verdicts, causing employers to leave the court room bankrupt, even though they were in nowise morally responsible for the accident. Again, as against this, they had seen many cases of like nature appealed to the higher courts and reversed, resulting in dependent orphans being left to the cold charity of the world.

To change this deplorable and unsatisfactory condition the Governor counselled the Legislature in his message as follows:

"The theory of compensation has been put into operation successfully in many different states in the Union, and I think it may be considered as a demonstrated success wherever it has been rationally employed. That being the case, it would seem to me that it is incumbent upon this Legislature to enact a reasonable, fair and proper Compensation Act. The Legislature should take the matter in hand and enact a law that will be fair to employee and employer and to the public in general."

The Legislative body acted upon the Governor's recommendation and enacted a law that has successfully stood the test of four years' actual application, because they created a law designed to better the conditions surrounding the man

who toils, a law having for its objective the shifting of the entire burden of industrial accidents from the victim to the industry.

COMPENSATION'S RELATION TO INDUSTRY.

All are now agreed that compensation laws are necessary and that they are founded upon a broad conception of the inter-relationship existing between the employer whose enterprise and capital are invested in the operation and the employee whose labor is necessary if the investment is to result profitably. The interests of each are in every respect identical and neither should be discriminated against to the extent of being compelled to bear the entire loss of accidents occurring in the operation of the industry in which they are jointly engaged.

Two groups are recognized as constituting industry: "employers" and "employees." The object of each group is to a degree selfish, as it should be. Each desires to profit by and through industry, which objective is greatly enhanced when petty differences are "ironed out" through obtaining a better understanding of each other and a fuller appreciation of the problems that confront one another. With the accident cost shifted from each group to the industry, it eliminates one of the most prolific sources of misunderstanding and bad blood.

In conceding that equal justice to all demands that industry shall bear the expense of accidents connected with its operation, it should be fully realized that the result means a changed attitude toward industrial accidents, accompanied by a sincere and combined effort to prevent their occurrence, which after all means more than the payment of any compensation.

The experience of the past four years has fully established the fact that the Compensation Law is highly acceptable to all the employers and employees engaged in the various hazardous industries of the state. Likewise it is also approved by the people at large who are consumers and in the final analysis the real bearers of the burden or cost of compensation. They are pleased and satisfied with the compensation method of caring for industrial accidents.

To the workman the decided advantages of the law are readily apparent, as he knows the instant he suffers an accident what part the Compensation Law will take in his case. To the employer, while the law has defined for him the cost of the individual accident, the total actual cost for the month or year is problematical. However, as against this disadvantage is the benefit accruing to him on account of the state of satisfaction and contentment enjoyed by the employee, due to the knowledge that he will be the recipient of prompt relief in case of trouble. This peace of mind of the employee has proved of most decided advantage to the employer in the conduct of his business; also in this connection is the employer's satisfaction in the fact that the money he pays for compensation goes in its entirety to his injured employee and is not wasted in strife-breeding litigation.

The benefits accruing to industry through the medium of the contented homes of satisfied workmen who appreciate the fact that in the event of accident they will be cared for, more than return the cost of compensation. Hence, while the expense of compensation is recognized as a legitimate and proper debit against industry, and is so charged, there is in reality no net loss, as the condition which compensation insures more than offsets the cost.

BENEFITS OF THE LAW.

Among the many advantages of a Compensation Law to the laboring man, the one providing that injured workmen shall receive speedy and certain relief at a time when it is most needed is entitled to special recognition; also that the sum he receives suffers no deduction on account of legal or court expense. Even though the amount may be small, as compared to his earnings, yet it is his without dispute or cavil, accompanied by only good wishes, as contrasted formerly to court judgments representing only ill will.

While possibly the advantage is not so pronounced in the case of the employer, yet he knows with reasonable certainty what he will be called upon to pay, and he is relieved from the distressing annoyance of strife-breeding litigation.

He is no longer at the mercy of the unscrupulous "ambulance chaser" lawyer. What he pays goes in its entirety to his distressed employee.

Considered together the mutual advantages or benefits of compensation laws, both as to operator and workman, are most potent. They are brought into more intimate touch with each other, resulting in more harmonious relations, which is productive of much mutual good. The operator relinquishes his common law defenses and the workman gives up his chance of securing a heavy damage verdict. These advantages pro and con have been surrendered in exchange for a fixed liability on the part of the operator and a reasonable compensation for loss of earning power on the part of the workman. Ultimately both are greatly benefited; likewise society at large. The only loser is the unpopular trouble-making personal liability attorney.

The benefits are enjoyed by society through the elimination of much court expense heretofore incurred through caring for personal liability cases originating in industrial accidents. These cases have been estimated as calling for one-third of the time and labor of the courts, with attending costs of juries and witnesses. Also society is the beneficiary through the marked reduction in poverty and pauperism. Compensation and the almshouse bear no relation to each other. The compensation law has cheated many a poor farm. The contentment and peace of mind of the laborer, resulting from the knowledge that the payment of compensation is certain, is also a considerable factor in producing efficiency, of which society is the beneficiary.

THE FIRST COMPENSATION LAW.

Covering modern times, Germany is credited with the first attempt at a Compensation Law by an act of its Reichstag in the year 1884, which action was followed the next year by Great Britain and a few other European nations.

In America the first laws to stand the test of constitutionality were those of Washington, Kansas, New Jersey and Wisconsin, enacted during the month of March, 1911. The

Wisconsin law became effective upon its passage May 3, 1911. Now forty-one states have laws of which Montana was the twenty-seventh, exclusive of its attempt during the year 1909.

The first authentic Compensation Law that we have been able to discover should be credited to ancient Lombardy through the medium of the edict of King Rotharius, dated A. D. 643. This proclamation provided compensation for those who might be injured in fights or brawls or physical encounters of any kind, and as translated reads as follows:

"If anybody of another the great toe from the foot severs, he pays solidi sixteen.

If the second toe from the foot he severs, he pays solidi six.

If the third toe he severs, he pays solidi three.

If the fifth toe he severs, he pays solidi two.

Upon all these damages or injures above described, which among men occur, therefore, this payment have we placed.

That the Faida (feud or vendetta); that is the hatred, after receiving the above described payment may cease, and, moreover, it is desired may not be required."

The edict provides a similar schedule for the loss of fingers, eyes, arms and legs, etc. As a solidi equalled about five dollars in American money, it is evident that King Rotharius was modest in his compensation award. However, as it will be noted, the compensation provided by King Rotharius for the loss of the great toe in its entirety was sixteen solidi, or eighty dollars, while our law provides, for a similar loss, compensation for thirty weeks at twelve dollars and fifty cents per week, or three hundred and seventy-five dollars, which by comparison possibly only represents the fair increase in values since the days of King Rotharius.

THE MONTANA LAW.

Modern industry, with its complex economic problems, compelled the enactment of Workmen's Compensation Laws. The introduction into all lines of industrial endeavor of power-driven machinery during the past few years multiplied accidents to the point where in business desperation the captains of industry were forced to devise something that would divide and distribute its distressing burden. The first attempts, as might reasonably be expected, were rather crude.

Montana was "early on the job" with the Legislative Act of 1909, which was one of the first attempts made in this country to enact a Compensation Law. It was found unconstitutional by the Supreme Court on account of involving double liability. The second attempt was the referendum measure rejected by the voters at the general election of 1914 on the grounds that it was too drastic and far-reaching. The third, the law under which we are now operating, was designed to avoid the errors of the other two, and the lessons learned from the former mistakes together with the experience of other states operating under Compensation Laws were the guiding lights in framing the present law. The Act is the finished product of a most thorough and impartial investigation of the subject of Workmen's Compensation, and is, perhaps, as good a law as human wisdom could devise with the experience and data available at the time of its enactment.

In the case of the Accident Board against the City of Butte, which was a friendly action brought upon an agreed statement of fact to secure the interpretation of the Supreme Court on the provisions of the law governing public municipalities, Mr. Justice Holloway, in delivering the opinion of the court, referred to the Montana Law in the following very expressive language:

"Speaking generally, the measure (Chapter 96, Laws of 1915), is intended to provide compensation to workmen who are injured, or to dependents of workmen killed in hazardous undertakings. It provides three plans for securing and making payments. The Act is intended to cover all hazardous employments except certain special classes which are excepted and which need not be considered here."

Evidently the designers of the Montana Law fully realized that the old decrepit common law liability procedure had outlived its usefulness. They appreciated the fact that under its operation every case was a gamble or a wager against the outcome of a lawsuit. They knew that sympathetic juries rendered big verdicts, while equally meritorious cases poorly handled generally resulted in nothing. They comprehended the meaning of statistics which disclosed that in the year 1911 (preceding the passage of Compensation Laws) nearly \$30,000,000.00 was contributed by the employers of the country to insurance companies writing liability

insurance to pay the premium charges for carrying their risks protecting them against accidents. They knew that less than one-fifth of that amount reached laborers who were accidentally injured, or beneficiaries or dependents who were dependent upon the earnings of injured workmen. They understood that such a condition, which indicated an economic waste of nearly \$25,000,000.00 a year, belonged to a system that could not and would not be tolerated by the people of this great sovereign, once it was fully understood.

These investigators, who determined upon the Law, realized fully that insurance benefited the company writing it and possibly the employer paying it, but that it was exceedingly detrimental to the employee and his dependents, and that, even if it did cost the employer less than compensation, yet it was much better for the operator to incur the trifling additional cost of compensation in view of the fact that the money expended goes in its entirety to the injured workmen, resulting in something vastly better than to have it go to swell the coffers of attorneys or to increase the profits of liability casualty companies.

The result of the Law's operation for the past four years justifies the claim that it bears favorable comparison to the law in operation in any of the other states. It contains the best features existing in the acts of the majority of the compensation states. One of its advantageous features that contributes to its superiority is that while it is elective, the conditions laid down for those who do not accept its provisions are so embarrassing that it practically means in effect that it is compulsory.

The elective provisions of the Montana Law, as in many other states, are such that if the employer fails to elect to operate under it, he is denied the right in litigated cases to plead the so-called "common law defenses." An employer who fails to come under one of the three plans provided by the law has not earned for himself a very enviable standing in court in defending a damage suit brought by one of his injured employees.

The Act specifically provides that in actions for damages it shall not be a defense that the employee was negligent, unless such negligence was wilful, or that the injury was caused by the negligence of a fellow employee, or that

the employee had assumed the risk inherent in, incident to, or arising out of his employment, or arising from the failure of the employer to provide and maintain a reasonably safe place in which to work. Consequently it is not difficult to realize that while the Montana Law is elective, it is for all ordinary purposes, comparatively considered, compulsory.

The Montana Act provides special guarantee in the matter of security for the payment of compensation. It is evident that there would be little advantage in awarding compensation for the relief of injured workmen or their dependents if the employer who was ordered to pay compensation were unable to do it. Hence this eventuality is amply safeguarded and the payment of compensation due injured employees or their dependents is absolutely certain and sure.

The law provides that compensation, consisting of fifty per cent of the wages, governed by a maximum of twelve dollars and fifty cents per week, shall be paid monthly, and extend from one hundred and fifty weeks, as in cases of partial permanent disability, to four hundred weeks, as in cases of total permanent disability, followed in the latter case by five dollars a week for life.

It is evident, on account of the long time period covered by the compensation payments, that an injured employee is exposed to the risk of an employer who, even though solvent to the highest degree at the time of the injury, might later become financially unable to complete the payments ordered. To guard against any such possible calamity the law provides that all employers operating under Plan One, which permits employers to carry their own risk, must furnish not only satisfactory proof as to their financial ability to pay whatever compensation may be charged against them but they must also deposit with the Board whatever bonds may be necessary to guarantee such payments.

In the event the employer does not wish to furnish the security required under Plan One, he must insure his risk under Plan Two with some insurance company authorized to do business in the State, or he must insure with the State Fund under Plan Three.

Taken in its entirety and considered from every angle, especially since the amendments made by the last Legislative session, approved March 4, 1919, it is doubtful if any state,

out of the other forty compensation states, is enjoying a better or more comprehensive Act than the one under which the employers and employees of this State are operating. Unquestionably there are some features of the law that can be improved, but there is nothing that seriously interferes with the successful operation of the Act. There are a few disputed questions and criticised provisions of the law which may justify Legislative action in the future, such as the provision defining "inherently hazardous occupation," concerning which some employers and many insurance agents are experiencing trouble.

Labor organizations question what they term the injustice of a two weeks' waiting period during which time no disability compensation is paid. Again many criticise the provisions of the law governing the payment of compensation for amputations, with the suggestion that the joint as related to the point of amputation should not be the governing feature, but that the portion or part of the member amputated should receive proportionate compensation as compared to the entire loss of the member. It is also held by some that disability should be paid for in addition to the specific amount for the loss of any member amputated; also that permanent disfigurement and permanent partial impairment should be compensated for in proportion to the percentage that it bears to total disability; also that the loss of the use of a member for the ordinary purposes of earning a living should be equivalent to the amputation of such member.

It is well to remember in considering the objections raised that the features criticised are identical with the provisions existing in the laws of the great majority of compensation states, where the acts have passed beyond the experimental stage and have been approved by the people who are operating under the law.

MONTANA'S LAW COMPARED TO OTHERS.

The industrial changes of the past decade have necessitated Workmen's Compensation Laws. The shop, the mill, the factory, the mines, the smelter, have been substituted for the home as a place in which to work, bringing with it increased danger to life and limb of workmen until accidents

have become a definite factor in industrial computations. This condition of necessity fathered compensation laws, and the universal favor with which they have been received is evidenced by the fact that during the past eight years forty-one states and three territories have enacted some form of Compensation Law.

In the *Shea vs. North Butte Mining Company* case, involving the constitutionality of the Montana Compensation Law, decided by the Supreme Court on March 8, 1919, Chief Justice Brantly, in delivering the unanimous opinion of the court, said:

"The causes, from an historical point of view, impelling the enactment of Workmen's Compensation Laws and the object to be served by them, have heretofore been stated somewhat at length by this court. Hence it is not necessary to restate them. It is sufficient for the present purposes to call to mind that the object sought was to substitute for the imperfect and economically wasteful common law system by private action by the injured employee for damages for negligent fault on the part of the employer, which while attended with great delay and waste, compensated those employees only who were able to establish the proximate connection between the fault and the injury, a system by which every employee in a hazardous industry might receive compensation for any injury suffered by him, arising out of and during the course of the employment, whether the employer should be at fault or not, except only when the injury should be caused by the wilful act of the employee. In other words the theory of such legislation is that loss occasioned by reason of the injury of the employee shall not be borne by the employee alone, as it was under the common law system, but directly by the industry itself and indirectly by the public, just as is the deterioration of the buildings, machinery and other appliances necessary to enable the employer to carry on the particular industry."

The Chief Justice clearly covered the scope and purpose of the Montana Compensation Law. The decision of the Supreme Court in this case is reproduced in its entirety in another place in this report under the title of "Constitutionality of the Act," and the reader is urged to give the comprehensive finding of the court careful consideration, representing as it does the "last word" on compensation in this State.

The Montana Law bears favorable comparison with that of any of the other forty compensation states, as it is unquestionably better than many, and certainly as good as any. It contains what to Montana's needs means the best features

existing in the Acts of New York, New Jersey, Michigan, Wisconsin, Washington, California and Nevada, which were thoroughly canvassed by the authors drafting the Montana Law. While the Act differs in many respects from those adopted by the states named, yet as it has incorporated the best features from each one of them, it means that taken as a whole it is superior, at least for Montana's purposes, to any of the laws existing in the states mentioned.

Comparing the forty states and three territories now operating under Compensation Laws (which will be forty-one when the Missouri law becomes effective November 1, 1919), thirty states and two territories have adopted the elective form, of which twenty-four are compulsory as to public corporations. Twelve of the forty-one have selected the compulsory form for private employers as well as public corporations. As indicated by the name, the compulsory law makes the compensation plan automatically binding upon all employers and employees alike who are engaged in what are recognized as hazardous occupations. In contradistinction to this an elective law, such as Montana enjoys, permits the employer or employee to reject the compensation scheme offered and elect to be governed by whatever law or rule of liability exists under the common law statutes of his state.

The features of the various laws, covering the matter of compensation, possess many similarities, and although the question is treated in divers ways by the different states, in practically all the payment of compensation is assured. In six states the law requires that compensation payments shall be guaranteed through the medium of a state fund to the exclusion of any and all other methods. In twenty-one states the law provides that private companies only shall have the right to issue compensation insurance. Twelve states provide for compensation through the operation of state fund and stock company insurance. In the majority of these states self insurance by the employer is permissible under stringent regulations.

All of the Compensation Acts in operation in each of the forty-one states and three territories provide for medical attendance in some form, except the states of Arizona, Wyoming, New Hampshire and the Territory of Alaska. The Montana Law provides medical and hospital service for the

first two weeks following the accident in an amount not exceeding fifty dollars. In many of the compensation states both the time and amount provided for medical and hospital service are left to the discretion of the governing Board or Commission. Where the different laws provide a limit for medical fees, the average is seventy-five dollars, thus indicating that Montana is slightly below the average in the limitation placed upon medical bills.

All of the states except Oregon, and all of the territories except Porto Rico have a waiting period ranging from three days up to three weeks, but as the majority have two weeks, the same as the Montana Act, it would indicate that at least the reasoning in the majority of the states on this question is similar to ours.

All of the states except Oregon, Wyoming, Washington and the Territory of Alaska, base their compensation payments upon a percentage of the injured workmen's wages, ranging as high as sixty-six and two-thirds per cent of the wages, but as the majority of the states fix fifty per cent of the wages as a basis, the same as the Montana Law, it seems reasonable to conclude that this is a fair basis.

Three-fourths of the state laws provide an allowance for funeral expense, ranging from twenty-five dollars in some states to as high as two hundred dollars, as in the State of Maine. Again the Montana allowance of seventy-five dollars compares with that made by the majority of the states.

The provision of the Montana Law, providing that non-resident beneficiaries shall receive only one-half as much compensation as resident beneficiaries, has attracted much criticism. In Hawaii, New Jersey, New Hampshire and New Mexico non-residents are expressly and entirely excluded from the compensation provisions of the law. In all other states they are included either by special reference under a reduced scale, as in the case of Montana, or are assumed to be included on the same basis as residents account no reference being made to them. Again the provision of the Montana Law on this matter is in accord with that of the majority of the states.

The feature of limiting the Compensation Act to so-called hazardous employments obtains in Alaska, Arizona, Illinois, Kansas, Louisiana, Maryland, New Hampshire, New Mexico, New York, Oklahoma, Washington and Wyoming in about the same form as is employed in the Montana statute. The other states are silent on the question. In Alaska, Delaware, Kansas, Kentucky, New Mexico, Ohio, Oklahoma, Porto Rico, Texas, Utah, Virginia and Wyoming the Act is limited to employers having more than a certain number of employees, ranging from two to ten. In Colorado, Connecticut, Maine, Rhode Island, Vermont and Wisconsin employers having less than a certain number of workmen are not subjected to the abrogation of the common law defenses in case they decline to elect to come under the compensation law. In all other states there is no distinction as to the number of employees in which respect Montana is in line with the majority. In all of the states except Iowa, New Hampshire, Washington and Wyoming, all of the employees of the employer are included, but in the states named only those engaged in hazardous work are to be admitted.

Casual employees, farm laborers and domestic servants are excepted from the operation of the Act in nearly all of the states, either expressly or indirectly, with the exception that casual employees are included in Alaska, Kansas, Louisiana, Nevada, New York, Oklahoma and under the federal law.

In all of the states and territories, except Ohio, Pennsylvania, Porto Rico, Texas, Washington, West Virginia and Wyoming, the accidental injury calling for compensation must "arise out of and occur in the course of the employment."

Occupational disease, considered as a personal injury entitling a workman to compensation, obtains only in California, Hawaii, Massachusetts and under the federal government.

State fund insurance, similar to that provided by the Montana Act, is authorized in California, Colorado, Idaho, Maryland, Michigan, Nevada, New York, Ohio, Oregon, Pennsylvania, Porto Rico, Utah, Virginia, Washington, West Virginia and Wyoming.

Accident Boards or Commissions are provided in all of the states except Alaska, Arizona, Kansas, Louisiana, Minnesota, New Hampshire, New Mexico, Rhode Island and Wyoming. To date Massachusetts is the only state where steps have been taken to provide for the training and re-education of industrial cripples under the direct supervision of the Industrial Accident Board. This is a movement that is entitled to favorable consideration by every state operating under a compensation law, as it is an economic question of startling proportions which, in addition to its humanitarian features, must appeal to every citizen of every state. While relief of the distress of injured workmen is important, restored earnings is far more so.

Comparing the operation of Montana's State Fund Insurance Plan with that of other states having a State Fund, it will be noticed that in several, such as California, Ohio, Nevada and others, dividends are declared, payable to the employers who are policyholders in the fund. In Montana a similar condition is provided for through the authority vested in the Board to pass the monthly assessments when the financial condition of the fund justifies it. This has the same effect as the payment of dividends as far as the employer is concerned, and has the advantage of being a much simpler method. The federal government in the matter of irrigation districts has not resorted to the method of declaring dividends from the profits of the operation, but instead reduces the rates. Public corporations should not be associated or connected with operations of a dividend paying nature, as is evidenced by the method of operating municipally owned water works, light plants, etc., where no dividends are paid, but the public receives the benefit through the medium of reduced rates, which is the principle applied to the operation of the State Fund Plan—designated as Plan Three—under the Montana Law.

LAW AS AMENDED.

The Montana Act, which received executive approval on March 8, 1915, ran the gauntlet of the Legislative Session of 1917 and also the extraordinary session of February, 1918, but was amended by the Legislature of 1919, which amendments received executive approval on March 4, 1919.

In response to popular demand ten sections of the law relating to its operation were amended. Section 3(e) was amended to provide that all municipalities shall collect from contractors the premium due from such contractor to the Industrial Accident Fund, when making final settlement with such contractor. The effect of this amendment is to place all contractors on an equality.

The amendment to Section 4(a) of the Act, defining employers engaged in hazardous works or occupations, clarified the Law's provisions by admitting all employers who have one or more employees engaged in a hazardous occupation. The effect is to open the door to employers much wider than it was before.

The amendment to Section 10(a) makes the statute of limitations governing the filing of claims for compensation clear and unquestionable in that all claims must be filed in writing within six months from the date of the happening of the injury, either by the claimant or someone legally authorized to act for him, or otherwise be forever barred.

The amendments to Sections 16(a), 16(b) and 16(d) provide for an increase in the limit heretofore governing weekly compensation payments from ten dollars to twelve dollars and fifty cents. Due to the high wage schedule obtaining in Montana the effect of this amendment is to increase compensation twenty-five per cent.

Death benefits, formerly four thousand dollars, are now five thousand dollars, and monthly compensation payments, aggregating forty dollars per month prior to March 4th, are now fifty dollars per month.

The amendment to Section 16(c), authorizing the Board to grant lump sum payments, has broadened the provisions of the section, at least, to the extent of authorizing the Board to approve compromise settlements and requiring the Board's approval to all settlements.

Section 35(d) was amended to provide that all insurance companies writing compensation insurance must deposit with the treasurer of the Industrial Accident Board sufficient funds to guarantee the payment of compensation. This amendment has had a wholesome effect on insurance companies who were doing only a small business in the State by causing them to withdraw from the field. The trouble with these companies doing only a limited business was that claims for compensation had to be sent to their home office on the Atlantic seaboard, requiring in some instances months before the injured workman received his first compensation remittance.

The amendment to Section 35(g) was simply for the purpose of carrying out effectively the amended provisions of Section 35(d); likewise the amendment to Section 2(a) of the Act related only to an increase in the salary of the Chairman of the Board and did not affect the operative provisions of the Act.

COMPENSATION COST VS. LIABILITY INSURANCE.

At present it is difficult to ascertain the relative cost to the employer between the old personal liability system and the new compensation method of handling industrial accidents, due possibly to the fact that there has not been sufficient experience as yet under the various acts to definitely determine the difference in cost. Reliable data upon which to base calculations has been so meager up to date that it is doubtful if even the insurance companies are in a position to determine accurately what the actual difference is in average cost to the employer. Compensation Boards, insurance carriers and state insurance departments, as well as other agencies, are all carefully studying the cost question, with the result that correct data should soon be in hand with which to answer these questions. It is the judgment of this Board that when this is accomplished and the result known, the record will disclose that the compensation method costs the employer less than the old personal liability system did.

In the State of Washington, where they have enjoyed nearly eight years' experience under a compulsory Compensation Act, the claim is made that it has not cost the em-

ployers as much as they formerly paid to the casualty companies for the limited protection received; also that the injured workmen of the state have received four times as much under the Compensation Law as they formerly received under the old liability system, covering like accidents and conditions. The record in New York and Ohio, which states are also pioneers in compensation legislation, discloses a condition similar to Washington in that the cost to employers operating under a compensation system, compelling fixed payment on account of industrial accidents, is less than it was under the old uncertain, unsatisfactory liability system. Wisconsin, Michigan and California report a similar experience.

In comparing the systems, both as to cost and efficiency, one of the most potent reasons for discarding the old worn out employer's liability system was the fact that the major portion of the cost was represented by enormous sums of money wasted in lawsuits that could have been better used in caring for the helpless, blameless victims of the accidents. The consensus of opinion is that there is no comparison between the systems. This is evidenced by the fact that each year has witnessed many state Legislatures changing from the old to the new in response to popular sentiment and demand, while there is no instance of a state giving up the new law after trying it out.

Forty-one states and three territories, also the federal government, have adopted Compensation Laws during the past eight years, leaving only seven of the southern states under the old system, which even they acknowledge is pitifully inadequate to meet the demands made upon it. In all probability another two years will see this group of seven southern states discarding the liability method. There is evidently no comparison between the systems, where only one recognizes the principle that the laborer is "worthy of his hire," and should have at least a portion of his wages insured to him in case of accident.

CONSTITUTIONALITY OF THE ACT.

The interpretation of certain provisions of the Montana Law has been taken to the Supreme Court on agreed statements of fact, through the medium of a friendly procedure, for the purpose of securing the court's construction of the Act. The last case reaching the Supreme Court involved the question of the constitutionality of the entire law, and is known as *Shea vs. the North Butte Mining Company*. The unanimous opinion of the court was prepared by Chief Justice Brantly, and the Board takes the liberty of herewith reproducing the opinion in full, as it is a most comprehensive and exhaustive interpretation of the provisions of our Compensation Act:

SHEA VS. NORTH BUTTE MINING CO., et al. (No. 4348.)

(Supreme Court of Montana. March 8, 1919.)

1. **Constitutional Law, Key No. 48—Presumption of Constitutionality—Workmen's Compensation Law.**—The rule that an act will not be declared unconstitutional unless its validity is made to appear beyond a reasonable doubt applies with peculiar force to the Workmen's Compensation Law.

2. **Constitutional Law, Key No. 321—Remedy for Injuries—Workmen's Compensation Law—"Injury."**—That an employee, when he has elected under Workmen's Compensation Law, §§ 3(f)-3(j), to become subject to provisions of the act, may not thereafter prosecute an action for damages, does not make the act repugnant to Const. art. 3, § 6, as to affording a speedy remedy for every "injury," the quoted word meaning such injury as the law recognizes or declares to be actionable.

[Ed. Note.—For other definitions, see Words and Phrases, First and Second Series, Injury.]

3. **Constitutional Law, Key No. 46(1)—Questions Not Raised—Review.**—Where no question is raised as to propriety of any of the plans of compensation or the modes of payment required by Workmen's Compensation Law, it is unnecessary to notice their distinguishing features.

4. **Constitutional Law, Key No. 165—Vested Rights—Common-Law Defenses.**—While the Legislature cannot destroy vested rights, no one has a vested right in any rule of the common law, and the Legislature may abolish or modify the technical defenses of contributory negligence, assumption of risk, etc., recognized in personal injury cases, so long as there is no impairment of rights already accrued.

5. **Constitutional Law, Key No. 105—Technical Rights of Action—Abolishment.**—There is no reason why the technical rights of action arising out of the negligence of the employer may not be abolished, especially in the case of a compensation law, which becomes binding upon employer and employee at their election only.

6. **Master and Servant—Key No. 347—Workmen's Compensation—Discrimination Between Employer and Employee.**—The difference in modes by which employee and employer may indicate their election to be bound by Workmen's Compensation Law is not objectionable on the ground that it discriminates against either.

7. **Master and Servant, Key No. 87—Waiver of Provisions of Law.**—It is competent for an employee to waive the advantage of any provision of law which was intended solely for his benefit, so long as the waiver does not violate public policy. (Rev. Codes, § 6181.)

8. **Constitutional Law, Key No. 301—Due Process—Rule of Evidence.**—Workmen's Compensation Law is not unconstitutional because the silence of the employee, after employer has elected, establishes a presumption that employee elects to be subject to the act, it being within the power of the Legislature to establish a presumption, so long as it is not unreasonable and not conclusive of the rights of the parties.

9. **Constitutional Law, Key No. 80(2)—Workmen's Compensation—"Judicial Power."**—Workmen's Compensation Law creates the Industrial Accident Board as a purely ministerial body, and does not vest it with judicial power, within Const. art. 8, § 1, "judicial power" meaning "the power of a court to decide and pronounce a judgment and carry it into effect."

[Ed. Note.—For other definitions, see Words and Phrases, First and Second Series, Judicial Power.]

10. **Constitutional Law, Key No. 42—Constitutional Questions—Who May Raise.**—Conceding that Workmen's Compensation Law, §§ 18(d), 18(f), as to punishment for contempt, vest in Industrial Accident Board judicial power contrary to Const. art. 8, § 1, plaintiff employee, not about to be punished for contempt, is in no position to assail sections.

11. **Statutes, Key No. 64(7)—Invalidity in Part.**—Assuming that Sections 18(d) and 18(f) of Workmen's Compensation Law are invalid, assumption does not require conclusion that any other provision is invalid, in view of Section 24(b) as to invalidity of any part of act not affecting validity of remaining portions, where enough remains to render the same operative and effective.

12. **Master and Servant, Key No. 347—Workmen's Compensation Law—Constitutionality.**—The Industrial Accident Board, created by Workmen's Compensation Law, is not an unlawful body because the state auditor is a member, the only limitation found being in Const. art. 4, § 1, forbidding imposition of duties on auditor that appertain to legislative or judicial departments.

13. **Constitutional Law, Key No. 245—Master and Servant, Key No. 347—Equal Protection of Laws—Workmen's Compensation Law.**—Workmen's Compensation Law does not violate the clause of the Fourteenth Amendment to the Constitution of the United States guaranteeing to citizens the equal protection of the law.

Appeal from District Court, Silver Bow County; J. J. Lynch, Judge.

Action by Murty Shea against the North-Butte Mining Company and Norman Braly. Judgment dismissing action, and plaintiff appeals. Affirmed.

H. H. Parsons, of Missoula, E. K. Cheadle, of Lewistown, W. D. Rankin, of Helena, and B. K. Wheeler and Maury & Melzner, all of Butte, for appellant.

L. O. Evans, of Butte, W. B. Rodgers, of Anaconda, and D. M. Kelly, of Butte, for respondents.

BRANTLY, C. J. The defendant North-Butte Mining Company is a corporation organized under the laws of the State of Minnesota, and is the owner of mining claims which it is engaged in operating in Silver Bow county. When the cause of action upon which recovery is sought herein arose, the defendant Norman Braly was its superintendent. This action was brought to recover damages for a personal injury alleged to have been suffered by the plaintiff through the negligence of

the defendants during the course of his employment as a miner. The complaint is in the ordinary form, and alleges facts sufficient to sustain a recovery, unless a recovery is precluded by the provisions of the act passed by the Fourteenth Legislative Assembly commonly known as the Workmen's Compensation Law (Chapter 96, Laws 1915). Denying all the allegations of the complaint charging them with negligence, the defendants alleged as a complete affirmative defense that at the time the plaintiff was injured the defendant North-Butte Mining Company had elected to become bound by Plan No. 1 of the Workmen's Compensation Law, and had performed all the conditions prescribed by the Act to render such election effective; that the plaintiff had also, pursuant to the terms of the Act, elected to be bound thereby; and that, both plaintiff and defendant North-Butte Mining Company having made their election, the liability of the defendants to compensate the plaintiff for any injury suffered during the course of his employment through any negligent act or omission by them was such only as in that act provided. To this affirmative defense the plaintiff interposed a general demurrer, which was overruled. Thereupon, the plaintiff refusing to join issue by reply, upon application of defendants his default was entered and judgment rendered and entered against him dismissing the action, with costs. From this judgment he has appealed.

Plaintiff does not question the sufficiency of the answer to constitute a defense, provided the Workmen's Compensation Law is valid. Quoting from the brief of counsel: "The only question involved in this case is the constitutionality of the Workmen's Compensation Act."

The causes, from an historical point of view, impelling the enactment of Workmen's Compensation Laws, and the object to be served by them, have heretofore been stated somewhat at length by this court. *Cunningham v. Northwestern Improvement Co.*, 44 Mont., 180, 119 Pac. 554; *Lewis & Clark County v. Industrial Accident Board*, 52 Mont. 6, 155 Pac. 268, L. R. A. 1916D, 628. It is not necessary to restate them. It is sufficient for present purposes to call to mind that the object sought was to substitute for the imperfect and economically wasteful common-law system by private action by the injured employee for damages for negligent fault on the part of the employer, which, while attended with great delay and waste, compensated those employees only who were able to establish the proximate connection between the fault and the injury, a system by which every employee in a hazardous industry might receive compensation for any injury suffered by him arising out of and during the course of the employment, whether the employer should be at fault or not, except only when the injury should be caused by the wilful act of the employee. In other words, the theory of such legislation is that loss occasioned by reason of the injury to the employee shall not be borne by the employee alone, as it was under the common-law system, but directly by the industry itself, and indirectly by the public, just as is the deterioration of the buildings, machinery, and other appliances necessary to enable the employer to carry on the particular industry.

To every thinking person the object sought commends itself not only as wise from an economic point of view, but also as eminently just and humane. Such legislation, in whatever form it may provide compensation, has been formulated after the most patient study and investigation by our most eminent men in professional and industrial walks of life, in order to avoid such obstructions or limitations as might be encountered under our written constitutions. A persistent enlightened public opinion has brought about the enactment of such laws in a great number of the states of the Union. Some of them are elective, while others are compulsory; and though the validity of many, perhaps all, of them has been challenged on almost every possible constitutional ground, they have generally been upheld. Our own statute is elective. While it has been criticised on the ground that the schedule

of rates of compensation provided for by it are not sufficiently liberal, and also on the ground that it makes an unwise and unjust discrimination against the dependents of aliens, yet that it operates more justly and more satisfactorily than the old system is demonstrated by the fact that as soon as it became operative, on July 1, 1915, the great body of employers as well as of employees in the various industries in the State accepted its provisions, and have since been subject to them, as administered by the Industrial Accident Board created by the Act for that purpose.

(1) Under these circumstances, the rule that an act of the Legislature will not be declared invalid because it is repugnant to some provision of the Constitution, unless its invalidity is made to appear beyond a reasonable doubt, applies with peculiar force.

(2) It is said that the act is repugnant to section 6 of article 3 of the Constitution, which declares that "courts of justice shall be open to every person, and a speedy remedy afforded for every injury of person, property, or character; and that right and justice shall be administered without sale, denial, or delay." The respect wherein the act is repugnant to this provision is not specifically pointed out, but we gather from the brief of counsel that their objection is that, though the act is elective, it in effect closes access to the courts by the injured employe and compels him to seek relief, if he can obtain any at all, through the Industrial Accident Board. In other words, since the section declares in express terms that there shall be a judicial remedy for every wrong suffered by one person at the hands of another, it is beyond the power of the Legislature to provide any other remedy, though such other remedy is entirely optional.

The act is very long, and we shall not undertake to quote it. It will be sufficient to state the substance of the provisions which are made the points of attack by counsel. The modes provided by which the election must be made by both the employer and employe are prescribed in sections 3(f), 3(g), 3(h), 3(i), and 3(j). The employer is required to file with the Industrial Accident Board his election in such form as the board shall prescribe. It must state which of the three plans provided for he elects to be bound by, and a notice of it must be posted in a conspicuous place in his place of business, and also a copy of the notice filed with the board, accompanied by an affidavit showing that it has been posted as required. After the employer has made his election by complying with these requirements, every workman then employed by him, or thereafter entering his employment, is conclusively presumed to be bound by the act, unless he elects not to be bound by it. He shall make such election by written notice in the form prescribed by the board, served upon the employer, a copy of which must be filed with the board, together with proof of its service. If the employer fails to elect to come under the act, an ordinary action may be maintained against him for damages for an injury suffered by the employe in the course of his employment, or for death resulting from such injury, but the employer may not allege as a defense that the plaintiff was guilty of contributory negligence, or that the injury was caused by the negligence of a fellow servant, or that the employe had assumed the risk incident to the employment, or arising out of the failure of the employer to perform any of his common-law duties. On the other hand, if the employe elects not to be bound after the employer has elected to be bound, all the common-law defenses are available to the employer. It is declared to be the intention of the act that the employer shall elect to be bound before he becomes subject to it, and that the employe shall be presumed to have elected to be subject to it and under the plan stated by the employer, unless he shall affirmatively elect not to be bound by it. The employe may revoke his election at any time. The employer may make his election at any time. In case he does so, he becomes subject to the act for the re-

mainder of the fiscal year. After having once made his election, he is bound for the rest of the fiscal year under the plan first elected, and also for the succeeding years, unless within not less than 30 nor more than 60 days before the end of the fiscal year he elects not to be bound by it, or unless within the same time he elects to be bound by some one of the other plans. Such election must be made in the same manner as the original election. It is further declared that when both the employer and employe have elected to be bound by the act its provisions shall be exclusive, and the election shall be held to be a surrender by both of their right "to any other method, form, or kind of compensation, or determination thereof, or to any other compensation, or kind of determination thereof, or cause of action, action at law, suit in equity, or statutory or common-law right or remedy, or proceeding whatever, for, or on account of, any personal injury to or death of such employe," except as such rights are in the act itself specifically granted. The election shall bind the employe himself, and, in case of his death, his personal representative and all other persons claiming under him. The employer is likewise bound, together with those who may conduct his business during liquidation, bankruptcy, or insolvency.

(3) Three plans of compensation are provided for, differing in the mode by which benefits or compensation must be paid to the employe. Since no question is made as to the legal propriety of any of these plans or the mode of payment provided under each of them, it is not necessary to notice their distinguishing features.

The Industrial Accident Board consists of three members—the State Commissioner of Labor and Industry, the State Auditor, and the Chairman, who is appointed by the Governor for a term of four years, and receives a salary of \$4,000 per annum. The other members receive no compensation other than their salaries as state officers. A majority of the board constitutes a quorum for the transaction of business. An appeal may be taken to the district court from any award made by the board, by any person affected by it. The trial in the district court must be *de novo*. The court may, on good cause shown, permit additional evidence to be introduced; otherwise the hearing must be upon the certified record of the proceedings of the board. If no appeal is taken, the award of the board is final.

We agree with counsel that, when an employe has elected to become subject to the provisions of the act, he may not thereafter prosecute an action for damages against the employer for an injury suffered by him during the course of his employment; nor may his personal representative prosecute such an action in case of his death. But counsel are in error in supposing that for this reason the Compensation Act is repugnant to the section of the Constitution quoted. Their contention is based upon a misconception of the scope of the guaranty therein contained. A reading of the section discloses that it is addressed exclusively to the courts. The courts are its sole subject-matter, and it relates directly to the duties of the judicial department of the government. It means no more nor less than that, under the provisions of the Constitution and laws constituting them, the courts must be accessible to all persons alike, without discrimination, at the time or times, and the place or places, appointed for their sitting, and afford a speedy remedy for every wrong recognized by law as being remediable in a court. The term "injury," as therein used, means such an injury as the law recognizes or declares to be actionable. Many of the state Constitutions contain similar provisions, and the courts including our own, have held, either expressly or impliedly, that their meaning is that above stated. *Johnson v. Higgins*, 3 Metc. (Ky.) foot page 514; *Barkley v. Glover*, 4 Metc. (Ky.) foot page 39; *Templeton v. Lynn County*, 22 Or. 313, 29 Pac. 795, 15 L. R. A. 730; *Martin's Executrix v. Martin*, 25 Ala. 208; *Cunningham v. City of Denver*, 23 Colo. 18,

45 Pac. 356, 58 Am. St. Rep. 212; *Mountain Timber Co. v. State of Washington*, 243 U. S. 219, 37 Sup. Ct. 260, 61 L. Ed. 685, Ann. Cas. 1917D, 642; *Middleton v. Texas L. & P. Co.*, 108 Tex. 96, 185 S. W. 556; *Cunningham v. Northwestern Imp. Co.*, 44 Mont. 196, 119 Pac. 554. If the contention of counsel should be upheld, the consequence would be that the Legislature would be stripped of all power to alter or repeal any portion of the common law relating to accidental injuries or the death of one person by the negligence of another.

(4) It is true the Legislature cannot destroy vested rights. Where an injury has already occurred for which the injured person has a right of action, the Legislature cannot deny him a remedy. But at this late day it cannot be controverted that the remedies recognized by the common law in this class of cases, together with all rights of action to arise in future, may be altered or abolished to the extent of destroying actions for injuries or death arising from negligent accident, so long as there is no impairment of rights already accrued. This necessarily follows from the proposition, well established by the courts everywhere, that no one has a vested right in any rule of the common law. The technical defenses recognized by it in this class of cases, viz. contributory negligence, assumption of risk, etc., may be abolished or modified without transcending any constitutional guaranty. *Middleton v. Texas L. & P. Co.*, supra; *Mountain Timber Co. v. State of Washington*, supra; *Cunningham v. Northwestern Imp. Co.*, supra; *State ex rel. Davis-Smith Co. v. Clausen*, 65 Wash. 156, 117 Pac. 1101, 37 L. R. A. (N. S.) 466; *New York C. Ry. Co. v. White*, 243 U. S. 188, 37 Sup. Ct. 247, 61 L. Ed. 667, L. R. A. 1917D, 1, Ann. Cas. 1917D, 629; *Borgnis v. Folk Co.*, 147 Wis. 347, 133 N. W. 209, 37 L. R. A. (N. S.) 489; *Sexton v. Newark Tel. Co.*, 84 N. J. Law, 85, 86 Atl. 451.

(5) This being so, there is no reason why technical rights of action arising out of the negligence of the employer may not be abolished by the Legislature in the same way. And so it is held by the courts of those states which have enacted compensation laws made compulsory, as in New York and Washington. If this is so, for a much stronger reason may it be asserted that there can be no objection to a compensation law which becomes binding upon the employer and employe at their election, but not otherwise. By way of inducement to the employer to accept the act, it is provided that if he refrains the technical common-law defenses shall not be available to him. As an inducement to the employe, his guaranty of compensation for any injury arising out of his employment becomes absolute, whereas, if he refuses to do so, he still has his action at law subject to all the common-law defenses. The employer cannot object because he has by his affirmative act elected to waive all objections to the extent of his liability and his obligation to make compensation. The employe cannot thereafter object if he fails to give the required notice of his refusal to accept the conditions imposed.

(6) The difference in the modes by which they may indicate their election is not objectionable on the constitutional ground that it discriminates against either employer or employe.

(7) The former is not in this case making any complaint; the latter cannot complain because it was competent for him to waive the advantage of any provision of law which was intended solely for his benefit, so long as the waiver did not violate public policy. Rev. Codes, § 6181; *Parchen v. Chessman*, 49 Mont. 326, 142 Pac. 631, 146 Pac. 469, Ann. Cas. 1916A, 681. He may waive his right to a jury trial in the manner provided by law. Rev. Codes, § 6762; *Chessman v. Hale*, 31 Mont. 585, 79 Pac. 254, 68 L. R. A. 410, 3 Ann. Cas. 1038. No one has ever questioned the power of the Legislature to provide a means by which the parties to a controversy may waive a trial by a court and submit the matter to arbitrators selected by themselves, by whose award they are finally concluded in the absence of fraud, gross error,

excess of power, and the like. Rev. Codes, § 7365 et seq.; *Solem v. Connecticut Fire Ins. Co.*, 41 Mont. 351, 109 Pac. 432. Other illustrative cases might be cited. These, however, are sufficient to show that it is no objection to the legislation that the employe, after his election to become subject to the act, is conclusively bound to accept such compensation as may be awarded to him under its provisions. Nor is it a valid objection to it that it provides for a different mode of election by the employe from that provided for the employer. This feature of the legislation has been frequently considered by the courts, and has invariably been declared unobjectionable. The following cases are directly in point: *In re Opinion of Justices*, 209 Mass. 607, 96 N. E. 308; *Young v. Duncan*, 218 Mass. 346, 106 N. E. 1; *Sayles v. Foley*, 38 R. I. 484, 96 Atl. 340; *Sexton v. Newark Tel. Co.*, supra; *Borgnis v. Folk Co.*, supra; *Hunter v. Colfax C. Coal Co.*, 175 Iowa, 245, 154 N. W. 1037, 157 N. W. 145, L. R. A. 1917D, 15, Ann. Cas. 1917C, 803; *Hawkins v. Bleakly*, 243 U. S. 210, 37 Sup. Ct. 255, 61 L. Ed. 678, Ann. Cas. 1917D, 637; *Mathison v. Minneapolis St. Ry Co.*, 126 Minn. 286, 148 N. W. 71, L. R. A. 1916D, 417; *Deibeikis v. Link-Belt Co.*, 261 Ill. 454, 104 N. E. 211, Ann. Cas. 1915A, 241; *Mackin v. Detroit-Timkin Axle Co.*, 187 Mich. 8, 153 N. W. 49.

(8) The silence of the employe establishes a presumption that he elects to be subject to the act. It is clearly within the province of the Legislature to establish presumptions and rules relating to the burden of proof, and a statute establishing a presumption of this character is valid, so long as the presumption is not unreasonable and not conclusive of the rights of the parties. *Bielenberg v. Montana U. Ry. Co.*, 8 Mont. 271, 20 Pac. 314, 2 L. R. A. 813; *Hawkins v. Bleakly*, and other cases cited supra.

But counsel say that it is not competent for a party to waive the right to have his cause of action determined by a court before the cause of action arises. This court has expressly held under our statute (Rev. Codes, § 6181) that a party may waive in advance the advantage of the statute of limitations because it was intended solely for his benefit. *Parchen v. Chessman*, supra. If this is true, there seems to be no compelling reason why, under the express authority of the Legislature, he may not at his option waive in advance the advantage of any remedy established solely for his benefit which the Legislature itself may abolish, especially when it has provided a substitute remedy, which renders his right to relief absolute.

(9) It is argued that the act is invalid in that it constitutes the Industrial Accident Board a court, whereas the whole judicial power of the state is vested in the courts enumerated in section 1 of article 8 of the Constitution. Several of its provisions are cited as evidencing the fact that the functions of this body are judicial. The fallacy of this contention is fully demonstrated by the case of *Cunningham v. Northwestern Imp. Co.*, supra. That case is decisive of counsel's contention. It is true that many of the functions exercised by the board are judicial in character; but that it is not vested with judicial power in the sense in which that expression is used in the Constitution becomes clear upon a moment's consideration. As used in the Constitution, the expression "judicial power" means "the power of a court to decide and pronounce a judgment and carry it into effect between persons and parties who bring a case before it for decision." *Miller on the Constitution*, 314. This power the board does not possess. It was created as a purely administrative body. It may hear evidence to enable it to make an award in a particular case, and to that end may call witnesses; but it is without power to render an enforceable judgment, and its determinations and awards are not enforceable by execution or by other process until a judgment has been entered therein on appeal to a regularly constituted court. *Mackin v. Detroit-Timkin Axle Co.*, supra. In this case, after considering the Michigan act, the court said:

"We conclude that the Industrial Accident Board is a ministerial and administrative body, with incidental quasi judicial powers, exercised by consent of those electing to be governed by the act, not vested with powers or duties in violation of constitutional limitations."

The same view is announced in the following cases: *Hunter v. Colfax C. Coal Co.*, supra; *Borgnis v. Folk Co.*, supra; *Deibeikis v. Link Belt Co.*, supra; *Middleton v. Texas L. & P. Co.*, supra; *Pigeon v. Empire L. Ass'n Co.*, 216 Mass. 51, 102 N. E. 932, Ann. Cas. 1915A, 737; *Greene v. Caldwell*, 170 Ky. 571, 186 S. W. 648, Ann. Cas. 1918B, 604.

(10) It may be conceded for present purposes that some of the powers vested in the board are such as appertain exclusively to courts; for illustration, the power conferred by section 18(d) and 18(f) to punish for contempt. Of this, however, the plaintiff cannot complain, as counsel for defendants point out in their brief, for two reasons: In the first place, plaintiff is not about to be tried by the board for a contempt, nor has he been convicted by it. Hence he is in no position to assail these provisions of the act on constitutional grounds.

(11) In the second place, though these provisions are assumed to be invalid, this assumption does not require the conclusion that any other provisions is invalid. Section 24(b) declares:

"If any section, subsection, subdivision, sentence, clause, paragraph, or phrase of this act is for any reason held to be unconstitutional or void, such decision shall not affect the validity of the remaining portions of this act, so long as sufficient remains of the act to render the same operative and reasonably effective for carrying out the main purpose and intention of the Legislature in enacting the same as such purpose and intention may be disclosed by the act."

An examination of the act in its entirety will disclose that, even though the provisions referred to by counsel are eliminated entirely, there is still enough left to accomplish all the purposes for which the legislation was enacted. The district court of the county in which the board happens to be sitting at the time an appeal is taken, which is elsewhere provided for in the act, has full power to compel the attendance of witnesses and punish them for disregard of subpoenas issued by the board.

(12) The next contention made by counsel is that the board is an unlawful body because the state auditor, one member of it, holds two offices. By this we presume counsel means that because the auditor is made a member of the board, and is required to execute a bond to guarantee the faithful performance of his duties, this constitutes him a public officer, in a capacity other than as state auditor. A complete answer to this contention is found in section 1 of article 7 of the Constitution. This section enumerates the state executive officers. It then provides that they shall perform such duties as are prescribed in the Constitution and by the laws of the state. It is not necessary to refer to the constitutional duties enumerated appertaining to the auditor's office. The only limitation imposed upon the Legislature in imposing duties upon the auditor is found in section 1 of article 4. This prohibits the imposition of duties upon him that appertain to the legislative or judicial departments of the government. So long as this limitation is not violated, the Legislature is at liberty to impose any governmental duty upon this office.

(13) The other contentions made by counsel are that the act denies a jury trial, and that it violates the clause of the Fourteenth Amendment to the Constitution of the United States guaranteeing to the citizens the equal protection of the laws. What we have said above in discussing the other questions heretofore determined disposes of these contentions.

The judgment of the district court is affirmed.
Affirmed.

HOLLOWAY and COOPER, JJ., Concur.

STATUS OF STATES AND TERRITORIES.

The so-called compensation states now embrace fully eighty-five per cent of the workmen of the country and include all the industrial states, with the possible exception of Alabama with its iron and lumber industries. Apparently the states predominating in industrial occupations of an inherently hazardous nature were the first to respond to the popular demand and necessity for compensation laws, such as Washington with its immense lumber industry, Wisconsin, Illinois, Ohio, Nevada and California with their mines of coal, iron and precious metals. However, of the ten states adopting laws in 1911, three were semi-manufacturing and agricultural states of the East and four of the remainder were located in the agricultural belt of the Central section, although heavy producers of coal and iron, while the other three were mining states of the Pacific slope.

The seven non-compensation states are the extreme South-eastern group, devoted almost entirely to agricultural pursuits, with the exception of Alabama, which is now taking steps to follow Tennessee and Missouri, the last two states to enact laws.

The status of the compensation states and territories is as follows:

State.	Character of Law	Approved.	Effective
Washington	Compulsory	Mar. 14, 1911	Oct. 1, 1911
Kansas	Elective	Mar. 14, 1911	Jan. 1, 1912
Nevada	"	Mar. 24, 1911	July 1, 1911
New Jersey	"	April 4, 1911	July 4, 1911
California	Compulsory	April 8, 1911	Sept. 1, 1911
New Hampshire	Elective	April 15, 1911	Jan. 1, 1912
Wisconsin	"	May 3, 1911	May 3, 1911
Illinois	Compulsory	June 10, 1911	May 1, 1912
Ohio	"	June 15, 1911	Jan. 1, 1912
Massachusetts	Elective	July 28, 1911	July 1, 1912
Michigan	Elective	Mar. 20, 1912	Sept. 1, 1912
Rhode Island	"	April 29, 1912	Oct. 1, 1912
Arizona	Compulsory	June 8, 1912	Sept. 1, 1912
West Virginia	Elective	Feb. 22, 1913	Oct. 1, 1913
Oregon	"	Feb. 25, 1913	July 1, 1914
Texas	"	April 16, 1913	Sept. 1, 1913
Iowa	"	April 18, 1913	July 1, 1914
Nebraska	"	April 21, 1913	July 17, 1913
Minnesota	"	April 24, 1913	Oct. 1, 1913
Connecticut	"	May 29, 1913	Jan. 1, 1914
New York	Compulsory	Dec. 16, 1913	July 1, 1914
Maryland	"	April 16, 1914	Nov. 1, 1914
Louisiana	Elective	June 18, 1914	Jan. 1, 1915
Wyoming	Compulsory	Feb. 27, 1915	April 1, 1915
Indiana	Elective	Mar. 8, 1915	Sept. 1, 1915

Montana	"	Mar. 8, 1915	July 1, 1915
Oklahoma	Compulsory	Mar. 22, 1915	Sept. 1, 1915
Vermont	Elective	April 1, 1915	July 1, 1915
Maine	"	April 1, 1915	Jan. 1, 1915
Colorado	"	April 10, 1915	Aug. 1, 1915
Hawaii	"	April 28, 1915	July 1, 1915
Alaska	"	April 29, 1915	July 28, 1915
Pennsylvania	"	June 2, 1915	Jan. 1, 1916
Kentucky	"	Mar. 23, 1916	Aug. 1, 1916
Porto Rico	"	April 13, 1916	July 1, 1916
South Dakota	"	Mar. 10, 1917	June 1, 1917
New Mexico	"	Mar. 13, 1917	June 8, 1917
Utah	Compulsory	Mar. 15, 1917	July 1, 1917
Idaho	"	Mar. 16, 1917	Jan. 1, 1918
Delaware	Elective	April 2, 1917	Jan. 1, 1918
Virginia	"	1919	Nov. 1, 1918
North Dakota	"	Mar. 5, 1919	July 1, 1919
Tennessee	"	April 15, 1919	July 1, 1919
Missouri	"	1918	Nov. 1, 1919
(United States		May 30, 1908	Aug. 1, 1908
(Amended		Sept. 7, 1916	Sept. 7, 1916

States without Compensation Laws.

North and South Carolina, Georgia, Florida,

Mississippi, Alabama and Arkansas.

MEDICAL AND HOSPITAL SERVICE.

The greatest economy connected with the operation of the Compensation Law is adequate medical, surgical and hospital service for injured workmen. It is far cheaper to pay competent doctors and surgeons to save lives, limbs and bodily functions than to pay compensation therefor. Hence it is safe to say that the best doctor is the cheapest, almost without regard to service charges.

The established custom in this state is for employers and physicians to enter into a mutual contract, subject to the approval of the men, for the care of sick and injured workmen. Judging from the experience of the past four years, it is safe to estimate that of the 74,000 workmen engaged in hazardous occupations in the state at the present time, fully three-fourths are protected by hospital contracts, for which they pay generally one dollar per month for unlimited medical and hospital service. This is paid for by the men themselves, thus relieving the employer from furnishing first aid service. Nevertheless it is the best invest-

ment that the men could possibly make, as they are fully compensated for the amount they pay for this service, which aggregates in the course of a year nearly three-quarters of a million dollars.

The advantages to the workmen in having the protection of a hospital agreement are very pronounced. The first aid provisions of the Law provide assistance only in case of accidents arising out of and in the course of the workmen's employment, when the employer is required to furnish medical and hospital service in an amount not exceeding fifty dollars covering the first two weeks following the accident. Hence if the accident is of a serious nature, such as the breaking of a leg, after the first two weeks the injured employee is compelled to pay his medical bills from his own resources. Again the first aid provisions of the law only relate to accidents, while all hospital contracts include service for sickness as well as accidents. As the percentage of incapacity resulting from accidents is less than one-half of that caused by sickness, it can readily be seen that it is to the advantage of the employee to have the protection of a hospital agreement, which cares for him in every instance for the full period of his misfortune. Wherever possible, the Board has consistently urged employers and employees, applying to come under the Law, to arrange for hospital contracts for the protection of the workmen. As fully three-fourths of the employers are covered by hospital contracts, it leaves only a small minority to be cared for under the first aid provisions of the law.

It has been the policy of the Board, when medical aid is required under Plan Three, to consult the nearest available physician, and thus far the method has proved satisfactory. During the four year period three hundred and fifty-eight different physicians have been consulted, and have rendered service to injured employees at a total cost of \$18,195.00. It can readily be seen that the amount paid to different physicians for medical service rendered the state under Plan Three, during the four years that the law has been in operation, would not have been sufficient to provide the expense of a medical department presided over by one salaried physician.

It has been due to the efficient co-operation of the physicians of the state, as well as the belief entertained that it was in the interests of economy, that no attempt has been made to organize anything in the line of a medical department to assist in the work of administering the law. With hardly an exception the physicians have been very fair in the matter of charges, and have favored the state with a somewhat lower schedule of prices than those in ordinary vogue. The physicians appreciate the prompt payment received for services rendered and realize that if it were not for the Compensation Law, with its first aid provisions, it would be necessary for them to render practically the same service to injured workmen, and possibly in a majority of the cases be compelled to charge the account off to charity.

Taken in its entirety the splendid service rendered by the medical fraternity of the state to the laborers under the provisions of the Workmen's Compensation Law permits of no cause for complaint. On the contrary it has been eminently satisfactory in, comparatively speaking, every case.

COMPENSATION SCHEDULE.

The most potent argument in favor of compensation is that maimed limbs and ended lives, due to accidental injury, which are industry's contribution to life's industrial struggle, are adequately and promptly compensated for upon the basis of a wage loss schedule.

The first essential is the prompt payment of compensation due the workmen. This is based in all of the states, except Oregon, Wyoming and Washington, upon a certain proportion or percentage of the employee's wages. This percentage runs all the way from fifty per cent of the weekly wages up to sixty-six and two-thirds per cent, and in the case of Porto Rico, seventy-five per cent, governed in each instance by a maximum amount or limit either for the week, month or year, or total amount, as the case may be.

The Montana schedule is fifty per cent of the employee's wages, governed by a maximum of twelve dollars and fifty cents per week. Much adverse criticism has been directed to this schedule, holding that it is inadequate on account of

the maximum limit of twelve dollars and fifty cents per week, which the critics insist results in the rate or schedule amounting to less than thirty-five per cent of the average weekly wages of the injured workmen.

Out of the forty-one states having compensation laws, twenty have the same basis of award, or fifty per cent of the wages. Nine states base their compensation on from fifty-five to sixty-six and two-thirds per cent of the wages, while three states have a flat rate, ranging from twenty-five dollars per month, as in Oregon, to thirty-five dollars in Washington. The award in cases of total permanent disability, consisting of fifty per cent of the wages for four hundred weeks, governed by the maximum of twelve dollars and fifty cents per week, corresponds with that of eight other states, while twenty-six states have a lower and seven a higher award.

From this it will be noticed that Montana is well up in the matter of the maximum limit governing weekly compensation payments, as of the seven states that have a higher limit, the range is from thirteen dollars to fifteen dollars, with the single exception of California which can grant as much as twenty dollars per week in compensation.

The amount possible of collection under our Act in cases of total permanent disability exceeds that of any other state but three, due to the fact that the five dollars per week that must be paid after the termination of the four hundred weeks at twelve dollars and fifty cents, may amount to a comparatively large sum, as it is payable during the entire period of disability, or for the remainder of the injured man's life. This may reach as high as twenty thousand dollars, which would be the case if a workman totally disabled at the age of seventeen by an accident resulting in an injury, such as the loss of an arm and a leg, lived to the age of eighty-seven. There are now pending four cases of permanent total disability where each of the claimants, providing he lives to be sixty-eight years of age, will have received in cash benefits amounting to over eleven thousand dollars.

No complaint has reached the Board relative to the compensation schedule provided for specific injuries, such as the loss of an arm, leg, eye or other member of the body.

This specific schedule, like many other provisions of the law, is the same as in the majority of the compensation states, and is in excess of several and below only four of the schedules obtaining in any of the states. Hence it seems but reasonable to reach the conclusion that the provisions of the Montana Act in the matter of the rate or schedule of compensation are fairly well balanced and cover that feature as well as the majority of the other states. The Porto Rico schedule of seventy-five per cent of the wages is rather misleading in view of the fact that the maximum or limit of weekly payments is set at seven dollars which represents in many instances less than twenty-five per cent of the weekly wages.

WAITING PERIOD.

To protect and safeguard the integrity of compensation certain restrictions must be imposed, one of which is a waiting period immediately following the happening of the accident, during which time no compensation is paid. There is a difference of opinion as to how long this waiting period should be, many maintaining that the Montana period of two weeks during which no compensation is paid, other than the first aid medical service heretofore referred to, is a hardship on the injured workman who furnishes his own medical service through the medium of a hospital contract. This is possibly true, and the law may deserve amending in that particular, but the experience of the older states and countries has justified practically all of them in maintaining a waiting period of some duration, during which no compensation is paid, the evident object being to prevent loitering or malingering in any form.

States which experimented by eliminating the waiting period of two weeks found that the number of compensable accidents increased fourfold. Experiment was then made by making the waiting period one week, but the decrease in the number of compensable accidents was less than one-fourth, and upon returning to the former plan of a two weeks' period the number of accidents decreased three-fourths, thereby indicating that when there were only a few days to wait, the tendency to linger along a few extra

days on half pay was too great to be resisted. The experiment also indicated that the great bulk of minor accidents required from one to ten or twelve days to bring about a complete recovery. The fact that nineteen states out of the forty-one having compensation laws, also two territories, have adopted the two weeks waiting period, would seem to establish the wisdom of allowing that length of time for the injury to develop and determine if it justifies the payment of compensation.

There is only one state, New Mexico, that goes beyond two weeks, and they have adopted a waiting period of three weeks. Seventeen states have one week, four states, ten days, which leaves Oregon and Porto Rico with no waiting period. As the major portion of their compensation schedule is based on flat amounts, the matter of a waiting period is immaterial. Wisconsin, Nebraska, Washington, Nevada and Louisiana have waiting periods of one week, which is eliminated if the disability extends beyond a certain time, generally four weeks. Iowa, New York, Maryland, Pennsylvania and South Dakota have waiting periods of two weeks, but in case disability extends beyond seven weeks the compensation is paid from the date of injury. Wyoming has a ten day waiting period, but if disability extends beyond thirty days, the waiting period is eliminated. The federal government has a waiting period of three days.

It is evident, if we are to judge from the experience of the federal government and the other forty states and three territories operating under a compensation law at the present time, that we must agree that a waiting period is necessary. Consequently as the majority of the states have adopted a two weeks' period, it would seem as though Montana had made the proper selection, although on account of the prevalence of hospital contracts paid for by the men themselves, thus rendering first aid unnecessary, it might be well to consider the effect of reducing the waiting period to one week.

EMPLOYERS UNDER LAW.

The first survey of the state, urging employers to elect to come under the provisions of the Act, was conducted through the medium of the mails as a matter of economy. This campaign resulted in the registration of 830 employers for admission when the compensation features of the law became effective July 1, 1915. Throughout the first year the list steadily increased until the registration at the beginning of the second year stood at 1,518 active members, and with the commencement of the third year, at 1,918, and the fourth year, at 1,964, and now with the close of the fourth year, or beginning of the fifth year, it stands at 1,970. This is out of a total who have applied during the four years of 2,894, of which 234 were rejected on account of not being engaged in hazardous work, and 690 have dropped out during the course of the four years on account of retiring from business. Many of these were small contractors who finished their contracts and left the state.

A careful survey of the employers of the state made during the past few months indicates that at least ninety-nine per cent of the employers engaged in hazardous occupation, who employ three men or more, are under the Act. There are over 1,200 employers in the state, who have only one or two men working for them, whom it seems impossible to convince that it is for their interest, as well as that of the men working for them, to come under the protection of the law.

We have 635 grain elevators in the state, employing one man each in addition to a manager, and of these only 120 are under the Act. There are 196 weekly newspapers in the state, employing from one to two men each, that are not under the law. We also have many blacksmith shops, automobile garages, repair shops, carpenter shops, paint shops, laundries, creameries, small machine shops, bakeries, slaughtering plants, stock yards, light, water and power plants, feed mills and saw mills, that employ from one to three men each, that cannot be convinced that it is to their advantage to operate under the protection of the Act. These employers have all been urged many times, through the medium of letters, to protect themselves and their men by coming under the Law. Gradually the indifference of some of these

is being overcome, and they are taking advantage of the protection offered. Hence it is reasonable to suppose that in the course of time by constant urging, they may be induced to accept the Law's protection.

With but two exceptions, every employer in the state engaged in hazardous work, employing ten men or more, is under the law. There is one operator, employing a force of over twenty men, who steadfastly declines to take advantage of the Act. He assigns as his reason for refusing to accept the provisions of the law that the compensation awards are excessive, and that it is cheaper for him to either settle with his men or fight if they are unreasonable. He has not yet been brought into court as a defendant in a damage case. When this happens, he will realize his mistake.

EMPLOYEES UNDER LAW.

To secure an accurate survey of the employees operating under the Act is far more difficult than in the case of employers. Our record is made up from reports submitted by employers, and it is difficult to induce them to keep their reports filed up to date.

The 1,970 employers who are actively operating under the Act have reported a total of 50,386 workmen. These figures, taken from the record, are made up principally from the reports filed by the employers at the time they elected to come under the law, and cover in many instances only the men employed for the years 1915 and 1916, both of which years in mining, milling and lumbering were depressed, with many employers not working full crews. It is only fair to assume that the 1,970 employers who employed 50,386 men at the time when they elected to come under the Act, are now employing nearly double that number, or at least did up to the signing of the Armistice in November.

The Board has endeavored to secure accurate figures covering the number of workmen in the state engaged in hazardous occupations, and to that end made a complete survey of every employer and plant in the state by letter with fairly good results. Hence the Board feels safe in

estimating from the data received that the actual number of employees under the Act last November was fully 85,000, but since the ending of the war there has been a falling off in the figures, and now, July 1st, it is not safe to figure on more than 74,000 men, which represents about ninety-seven per cent of the workmen of the state who are engaged in hazardous occupations.

These 74,000 men steadily employed, computed on Montana's prevailing wage scale, indicate a background against which the law is operating of a nominal annual payroll approximating \$90,000,000.00.

EMPLOYERS HAVE CHOICE OF THREE PLANS.

Under the provisions of the Montana Act all employers, except municipalities, are given their choice of three plans, and can elect to come under the protection of the law through the medium of whichever plan suits them best. In according the employer the right of selecting from these three plans the Legislature evidently secured from the various states operating under compensation laws the very best features available for the purpose of giving the employer a wide range of medium through which he could secure the benefits of the Act. With this in view it decided on the three plans which the law affords, which cover three distinct business angles, each one of which is effective.

All three of the plans are exceedingly comprehensive, providing, as they do, that the employer can carry his own insurance, taking the risk himself and paying his money directly to his injured employees; or he can, if he prefers, arrange with an insurance company to do the work for him by paying them an agreed premium charge for the service; or he can carry his risk with the state through the medium of contributions to the Industrial Accident Fund, representing the actual cost of the accidents occurring under the plan. Any one of the three methods is logical and serviceable, and answers the purpose of the law from every viewpoint.

It is really immaterial to the employee which plan is adopted by the employer, because he is certain and sure of his compensation money, regardless of the plan selected. As to the employer, aside from the possible sentiment in-

volved in carrying his own risk under Plan One, a choice of the other plans would ordinarily be determined by the cost involved. The experience of the past four years indicates this to be the case, as there has been much changing by employers from Plan Two to Plan Three, assigning as their reason the fact that it cost much less under the State Fund Plan.

The experience attending each plan for the past four years is set out in detail in the following pages, including the cost to employers, as well as the service rendered employees.

The detail of employers and employees operating under each plan also accidents occurring and amount of compensation paid; also accident cost and cost to employer under each of the three plans; also comparison of accident occurrence and cost for each year is best illustrated by the following table, compiled from the record up to July 1st.

PLAN	Employers	Employees	Accidents	Fatal	Compensation Paid	PER CENT OF PAYROLL	
						Accident Cost	Employer's Cost
One	64	40,305	17,635	535	\$1,682,630	$\frac{3}{4}$ of 1%	$\frac{3}{4}$ % payroll
Two	874	15,196	6,769	93	399,559	$\frac{2}{3}$ of 1%	$2\frac{1}{4}$ % payroll
Three	1,032	18,798	2,017	60	202,811	$\frac{4}{5}$ of 1%	1 % payroll
Total	1,970	74,299	26,421	688	\$2,285,000		

STATE INSURANCE FUNDS.

Organized labor is very partial to the state fund variety of Workmen's Compensation Laws, preferably of a monopolistic order, as indicated by the publication in the March number of the "American Labor Legislation Review" of the article by Hon. Royal Meeker, United State Commissioner of Labor Statistics, entitled "Lacks in Workmen's Compensation," from which we take the liberty of quoting from the small subhead captioned "State Insurance Funds," as follows:

"The only way compensation benefits can be extended to all the excluded classes is by means of exclusive public or so-called "state" insurance or by state-aided or monopolistic mutual associations. We have no place in America for monopoly unless it be a public mo-

monopoly. In justice to the workers therefore it becomes necessary to advocate public or "state" insurance to the exclusion of all other kinds of insurance. A "competitive" state fund which stands on the same footing as private competing casualty insurance companies seems at first glance to be the very quintessence of fairness and squareness. In reality it is never possible to put a state fund on an equal footing with private casualty companies. The private companies will take only the cream of the business and leave to the state fund the task of carrying all the more costly risks that are hardest to acquire and are most subject to great catastrophies which wipe out reserves. Just why should the community bind itself to refrain from giving the best guaranteed insurance to its workers at the lowest possible cost? It is well known that the overwhelmingly greater part of the high cost of competitive insurance is due to the expenses of acquisition, renewal, and collection of premiums. The investment of reserve funds and the computation of actuarial liabilities also constitute very heavy charges. The costs of acquisition, renewal, collection of premiums and investment of funds are almost eliminated under an exclusive state fund in which every employer would be obliged to insure his employees. The premiums should be assessed and collected in the same way as taxes. In fact, there is no more reason for the interference of private companies in the insurance of compensation risks than in the assessing and collecting of taxes. All the enormous advantages in economy and universality are lost or diminished if private competing methods are permitted to enter. A competitive state fund may be very little less expensive than a private profit-seeking stock casualty company.

"It is frequently argued that the insurance companies should be maintained because of their great contributions to human welfare in times past, and because of the enormous store of experience and wisdom which they have acquired and the vast vested interest which they have built up by their industry and integrity. I always go out of my way to call attention to the very great services performed by the insurance companies in the past. It is urged that an insurance company is different from a brewery or distillery in that it cannot, when there is no further need for it, be converted to any useful purpose, such as the manufacture of artificial ice, denatured alcohol or ginger pop. There is much force in this argument, but nothing like as much as in the case of the toll wagon roads of Pennsylvania which brought suit to enjoin the building and operation of the then newly conceived railroads on the ground that the monopoly charters of the toll-roads were violated by the charters granted to the railroad companies. The courts of Pennsylvania decided rightly against the toll-roads, holding that the progress of the community could not be held up by the monopolistic claims of an obsolete system of transportation. The same principle holds true in the realm of insurance. Community insurance is much cheaper and it reaches all, therefore it must and will supersede private profit-seeking competitive insurance. If exclusive state insurance cannot be obtained in any state, we should be ready to accept temporarily a competing state fund as one means of regulating and controlling private casualty companies."

EMPLOYERS' SELF INSURANCE—PLAN ONE.

Employers' Self Insurance, allowed under Plan One of the Montana Act, is in operation in the majority of compensation states, and permits employers to carry their own risk and pay compensation directly to their injured workmen. The employer must satisfy the Board as to his solvency and ability to pay whatever compensation is likely to be charged against him during the current year.

Since July 1, 1915, or during the past four years, 98 employers elected Plan One, of which number 64 (employing approximately 40,000 men) qualified and completed their election to operate under Plan One.

Twenty-three employers, who filed application to come under the Law through the medium of this plan, were unable to satisfy the Board as to their solvency, and their applications were returned with the recommendation that they elect to operate under Plan Two. This suggestion they followed, and as a consequence their names do not appear in the list of rejections elsewhere tabulated in this report. Nine applications to come under the plan were denied because the occupation that the employer was engaged in was not "hazardous" as defined by the Act. Two were denied admittance on account of their operations being outside the jurisdiction of the law, as they were within the boundary of the Glacier National Park, a national reserve under federal jurisdiction.

Twelve of the employers now operating under this plan have been required to furnish security in the form of guarantee bonds for the payment of whatever compensation may be charged against them.

For the four year period ending June 30, 1919, the employers operating under Plan One paid in compensation, including \$809,027.00 in lump sum death settlements and \$38,105.00 in burial expenses, the sum of \$1,389,721.86. A careful estimate of the claims pending or waiting settlement under this plan indicates an amount aggregating about \$90,000.00. Adding this estimate to the amount already paid, makes a total of \$1,479,721.86 as the compensation liability for the four years under Plan One.

For the past twelve months the compensation disbursements under this plan have been \$340,716.00, which plus pending claims, makes a total compensation liability for the past fiscal year of \$430,000.00. This total compensation cost for the year, computed on the partially reported payroll of the past twelve months of approximately \$45,000,000.00, indicates an accident cost of less than one per cent of the annual payroll.

The payroll reports received under this plan do not cover the payroll conditions of the present year, but date back in the majority of instances to the payroll for the year 1917. In a few cases reports have been received from some employers, bringing their payroll reports up to the end of June, 1918, but as stated, the record of payrolls under this plan is only complete for the year 1917, which, as will be recalled, was rather an "off year" as compared with 1918.

The information and data of record in this office, which is absolutely correct to the minutest detail in the matter of money that has been paid out, whatever the cause, and also as to the reported payrolls, indicates that the present payroll is in excess of \$50,000,000.00, which means that the actual payroll accident cost is only about three-fourths of one per cent. These figures indicate that the cost, as averaged, to all employers is about seventy-five cents on each one hundred dollars of their annual payroll, and clearly prove the business wisdom of the 64 operators in question in carrying their own risk under Plan One.

The record also establishes, in addition to indicating a very cheap insurance cost to the employer, the very gratifying fact that the accident occurrence has been exceptionally low, despite the forced production during 1918 on account of war's demands for copper in the Butte district which maintained an average production in excess of 1,000,000 pounds a day, thereby permitting but little choice or discrimination as to the experience of the men going below which meant increased accidents.

CASUALTY COMPANY INSURANCE—PLAN TWO.

Plan Number Two provides that employers shall insure their compensation liability with some insurance company authorized to transact business in the state. Employers to the number of 2,010 selected this plan, who in the year 1917 reported the employment of 10,857 men, and who for 1919 likely employ 15,000 men, and completed their election to come under Plan Two, representing a payroll of approximately \$20,000,000.00.

In addition to the 2,010 employers who completed their election, the Board found it necessary to deny the applications of 230 because their employment was not of a hazardous nature as defined by the Act. Consequently their only medium of admission was under Class Twenty-Seven, Plan Three, by the joint election of both employer and employee as being engaged in a non-hazardous employment. This indicates that a total of 2,370 employers elected Plan Two during the four year period.

Aside from the rejections, 650 employers have retired from active business since the Law went into effect and permitted their insurance to lapse. Also 590 have changed plans, leaving 870 with active insurance policies entitling them to the privilege of operating under the plan at the end of the fiscal year, June 30th, 1919.

The applications of employers who were rejected represented those who were engaged in non-hazardous pursuits, such as operators of hotels, general merchandise stores, hay, grain and feed dealers, general commission merchants, cigar dealers, fruit and produce dealers, confectionery stores, real estate agencies, restaurants, dealers in notions and various other non-hazardous pursuits, as shown in the tabulated list of rejected applications, as submitted elsewhere in this report. The amendment to Section 4(a) of the Act by the last legislature will make the admission of some of the risks that were rejected under Plan Two now possible, and the insurance companies have been so notified.

The state law regulating insurance companies provides that all companies shall file with the State Insurance Commissioner, under oath, a statement showing the premiums collected each calendar year. This report must be filed

with the Commissioner not later than March 30th of each year, covering the premiums collected up to the preceding January. The report so filed discloses that for the period of time from July 1, 1915 to December 31, 1918, three and one-half years, the premiums collected on compensation policies in the state aggregated \$964,461.57, and that the same companies for the same period of time paid in compensation \$297,436.25.

These figures indicate that from the amount of premiums collected the companies have paid in compensation only about thirty per cent, which means that out of every dollar collected in premiums from the employers by the insurance companies, only thirty cents has been paid in compensation. However, this is hardly fair, as the pending claims are not accounted for in the amount reported to the Insurance Commissioner as having been paid by the companies up to the first of the present year.

For comparative purposes the record should be brought up to the end of the fiscal year, June 30, 1919, by adding to the collected premiums reported a fair estimate of the premiums collected during the past six months, which can be assumed to be one-half of the amount collected for the twelve months of 1918, or \$114,118.34, making a total for the full four years in premiums collected of \$1,078,579.91.

Against this amount the companies have actually paid in compensation \$327,436.25, to which add a liberal estimate for pensions and pending claims of \$25,000.00, making a total of \$352,436.25 paid in compensation benefits for the four year period. This amount deducted from the premiums collected of \$1,078,579.91, shows a profit difference of \$726,143.66, indicating an expenditure for compensation purposes of only thirty-three per cent of the premiums collected.

It is evident from these figures, which cannot be disputed, that from every one dollar paid by the employers to the insurance companies on account of premiums, sixty-seven cents reverted to the private account of the insurance companies. These figures indicate that the employers operating under Plan Two are carrying an undue proportion of the compensation burden as compared to the accident cost they contribute to the plan.

The premium rates quoted in the policies which have been filed with the Board taken in connection with the figures submitted to the Insurance Commissioner, indicate that an average rate covering the risks under Plan Two, taken in their entirety, would exceed two and one-half per cent of the payroll upon which they are computed, while the entire compensation liability computed on the same payroll, shows an actual accident cost of about three-fourths of one per cent. These figures indicate that the insurance companies should make a substantial reduction in the rates now charged employers, which undoubtedly they will do, as they have in other states.

In view of the fact that more employers have applied for admission under Plan Two through the medium of insurance companies than under both of the other plans combined, it would indicate that the cost of insurance is a vital factor in the operation of the Act. Therefore employers are entitled to know if the premium rates charged are fair and reasonable, or if they are more than the service is reasonably worth. The figures submitted represent four years of actual experience, and while this period of time is possibly not sufficient to justify accepting the experience as conclusive, yet it should serve to indicate to the several insurance companies interested that the employers of the state are entitled to a substantial reduction.

The compensation cost record for the past four years in this state should certainly satisfy the companies that the premium rates they have been charging are too high.

Possibly an abundance of precaution might justify waiting a little longer before accepting the results of the past four years' experience under the Act in this state as conclusive and entitled to enough weight to warrant the exclusion of statistics compiled by insurance carriers, covering many years of experience under the Compensation Act in other fields. However, regardless of what should or should not be done, the figures are given to the public for just what they are worth without any assurance or prophecy on the part of the Board. They have been taken from the record in every instance and represent the actual and undisputed facts governing the four years' experience under the law and certainly would seem to justify the insurance companies carefully considering the wisdom of reducing their

present premium rates, covering compensation risks, despite the fact that the amendment made by the last legislature means an increase of not less than twenty-three per cent in the amount of compensation to be paid.

The profits enjoyed by the casualty companies in the compensation insurance business in this state justify a scaling down in premium rates, regardless of the amendment referred to, and it is to be hoped that the companies will recognize the rights of the employer to that end.

STATE FUND INSURANCE—PLAN THREE.

State Fund Insurance, authorized under Plan Three of the Act, provides that employers shall pay into the Industrial Accident Fund a certain premium, based on a fixed rate of their annual payroll. At first this plan did not prove as attractive to employers as Plan Two, for only 718, with 9,691 employees, chose to operate thereunder during the first two years.

The apparent discrimination of employers during the first two years against Plan Three may be accounted for in a great measure by the fact that no agents solicited business, as was the case under Plan Two. However, the plan made such a remarkable showing for the two year period that it attracted many employers to it during the third and fourth years.

Despite the opposition to the theory that the state can economically furnish employers with compensation insurance, the necessity for State Fund Insurance was caused by the abuse which assiduously crept into the operation of stock and mutual insurance companies. The waste attending such methods was too heavy a burden for the employer and employee, with the result that many states adopted some form of State Fund Insurance, based in nearly every instance solely upon the accident cost, which means that the money paid by the employer into the accident fund in the shape of premium assessments, is used only for the payment of compensation.

Plan Three apparently at the start did not appeal to the employers. However, the third year witnessed quite an increase, evidently due to the record made for the two previous years in the matter of cost, and during the past twelve months 650 employers elected it, making a total of 1,601. Out of this number 659 have withdrawn during the course of the four years on account of going out of business, leaving 1,032 active members at the end of the fourth fiscal year, June 30, 1919.

The employers operating under this plan for the first year brought under the Act with them 6,520 employees; and for the second year, 9,691; for the third year, 12,060; and for the fourth year, just finished, 14,681. This data is accurate and up-to-date, as all employers under the plan are communicated with once each month and required to report the number of their employees each thirty days. Hence it is fair to assume that the total number of employees now under (July 1, 1919) Plan Three is about 15,000.

The premiums paid by the 1,032 employers for the past year amounted to \$181,709.35. This amount was contributed through the medium of six assessments levied for the twelve months from July 1, 1918 to June 30, 1919, and was collected from a reported payroll of about \$13,000,000.00, which represents an average premium cost to the employers of a little over one per cent of their payroll. During this period of time, or twelve months, the state has paid in compensation benefits of all kinds in behalf of the employers under this plan \$68,008.42, with pending claims aggregating \$30,000.00, making a total liability for the twelve months of \$98,008.42. This compensation cost computed on the total reported payroll for the year of approximately \$13,000,000.00, indicates an accident cost under the plan of about three-fourths of one per cent, which establishes most forcibly the gratifying fact of a low accident occurrence for the year.

Only six assessments were levied for the twelve months, or one each alternate month, at a total average cost to all the employers of about one per cent of their payroll. Some have paid more than this, as in the case of mining, which has cost all mine operators under the plan one and three-fourths per cent of their annual payroll, while others have

paid less, such as newspapers and printers at thirty-three cents on each one hundred dollars of yearly payroll, but as stated, the average cost equals about one per cent, which undoubtedly represents as low an insurance cost to employers operating under a compensation law as obtains anywhere in the world. Yet despite this low premium cost a splendid working surplus has been accumulated in the treasury of the fund, equalling in amount what has been disbursed, and constituting a safe protection against any possible calamity hazard.

For the entire four year period there has been a total collected in premiums under this plan of \$394,502.22, and a total paid in compensation of \$164,835.26, leaving a balance on hand of \$229,666.96, from which should be deducted the reserve fund set aside for the monthly payment cases, amounting to \$43,495.53, and also \$30,000.00 as an estimate to cover pending claims, making a total deduction of \$73,495.53, which leaves a net balance over and above all liabilities of all kinds up to July 1, 1919 of \$156,171.43.

Either the fates have been favorably disposed toward the employers operating under this plan, or those who have heretofore figured the cost of compensation insurance in this state have been grievously wrong, for the cost has not reached fifty per cent of the estimate they made, which clearly indicates that the premium rates fixed by the Legislature for Plan Three are, like the insurance rates under Plan Two, too high; but under Plan Three an equalizer exists in the authority given the Board to pass the monthly assessments when the money is not needed, which authority has been freely exercised.

For the first fiscal year, from July 1, 1915 to June 30, 1916, the premium cost averaged one-half of one per cent of the employer's annual payroll. For the second year, from July 1, 1916 to June 30, 1917, the cost was two-thirds of one per cent, and for the third and fourth years, covering the time from July 1, 1917 to June 30, 1919, the premium cost has been about one per cent of the payroll.

The experience of the past four years would justify the Board in lowering by at least one-half the rates that are scheduled in Section 40(a) of the Act, as during the first year less than one-fourth of the scheduled annual premium

rate was invoked in the shape of assessments, and less than one-third the second year, with one-half the third and fourth years. The premium rate, equalling one-half of the scheduled rate, which was applied the third year and likewise for the present year, has resulted in creating a splendid surplus against the possible occurrence of an accident of a calamitous nature.

The arrangement was agreed to by the employers under the plan, who were communicated with by special letter, requesting their views and wishes in the matter of levying six assessments for each year, or one every other month, thus fixing the premium rate of assessment at just one-half of the amount provided in the schedule laid down by the legislature in section 40(a) of the Act. Of all of the employers under the plan, only seven answered the communication with the recommendation that, if possible, the number of assessments be held down to the lowest point that would cover the payment of the current compensation, while over one thousand employers approved of the proposition to levy six assessments for the year for the purpose of creating a businesslike safe working surplus.

The instructions delivered to the Board by ninety-nine per cent of the employers operating under the plan were followed, which provided for six assessments during the year, one every alternate month, which, as stated, automatically fixes the premium rate for the year at one-half of the schedule rate laid down in the law. This regulation will be followed as long as six assessments for the year will continue to add to the surplus, and not encroach upon the present reserve held against the possible occurrence of a disastrous accident.

The plan of reducing the premium rate has proved much more satisfactory to employers than charging full rate and declaring dividends from the surplus. The twenty-five per cent raise in compensation made by the legislature last March may in time force on one additional assessment, making seven for the year. It is reasonable to assume that the legislature realized that the schedule of premium rates, which it had adopted, was too high, and, as an equalizer, provided in Section 40(e) that the Board should pass the monthly assessments whenever the fund contained a suffi-

cient amount to meet its current requirements. This provision would indicate that the rates scheduled in Section 40(a) only govern as to the maximum that can be charged during any one fiscal year. In the event that the year's experience indicates that the rate is too low, the Board has the right to raise it for the next succeeding year. The reverse of this is accomplished by passing the monthly assessments, the result being equivalent to an automatic reduction in the premium rates laid down in the Act. This method of passing assessments is equivalent to declaring dividends, which is the plan followed in some other states having State Fund Insurance. It affords a simpler and easier plan for giving the employer the benefit of whatever profits accrue from the operation by reducing his cost rate.

It is evident that a State Industrial Accident Fund, having no expense in the matter of agents, commissions or fees, or managing cost of any kind, if operated with economy, efficiency and actuarial accuracy, supplemented by honest safe judgment, must provide compensation insurance as cheaply as it is possible to be done. There is no good reason why compensation insurance should prove "costly" to a conservatively managed state fund as compared to the insurance company with its heavily loaded overhead charges and dividend account.

However, it is reasonable to assume that employers are not greatly interested these days in the matter of possible prejudice either for or against State Fund Insurance, or for or against casualty company enterprises. The question in which they are interested is, what is the cheapest form of compensation insurance that guarantees to them indemnity against injury or death to their workmen.

The unquestioned cost advantages of a state fund plan might reasonably be expected in the ordinary nature of things to develop a monopoly of that form of compensation insurance. However, it is doubtful if such an eventuality would be beneficial, for the best results will unquestionably be reached by retaining the provisions of the law which give the employer the widest possible range of choice in the placing of his insurance. The greatest latitude should govern this, providing that in all cases the underwriter or

the party furnishing the insurance is strong financially, and also prompt and fair in the settlement of compensation claims.

There is not the slightest excuse for friction in connection with the operation of the different plans, for each has its field and the competitive features that each plan possesses as against the other constitute a healthy condition that makes only for good. All who have given the matter a moment's thought must agree that the adoption of Plan Three was an exceedingly wise provision by the Legislature, and one that the employers of the state will continue to be grateful for, due to the fact that it will always guarantee to them low rates and fair dealing on the part of the insurance companies.

At the time of the enactment of the compensation law there were many opposed to the plan of state insurance, and predicted that its operation would prove a failure, but with all due respect to these people, they were decidedly ill-informed. The experience under the plan for the past four years indicates that even if it did receive all the bad risks, the grave fears entertained by skeptics as to its success have not been realized. Despite these imaginary setbacks the plan has met all the demands made upon it promptly, and has continued to grow in favor with the employers since the day it commenced to function.

The history making up the record of the past four years' operation of the law establishes the fact that the State Fund Plan has furnished protection to the employers operating under the Act much cheaper than Plan Two, and has also given better satisfaction to injured employees on account of prompt settlements, divorced of all haggling. In all undisputed cases compensation has been paid the day it fell due, thus affording prompt relief when most needed. The plan is financially and economically safe and sound.

WHY MONTANA'S COST IS LOW.

During the fiscal year from July 1, 1918, to June 30, 1919, the 1,970 employers operating under the Act employed an average of 80,000 men. In November, 1918, the number was about 85,000, but with the signing of the Armistice, the force of men in the copper, zinc and lead mines was reduced, with the result that at the present time (July 1, 1919) there are under the Act approximately 74,000 workmen. Out of this number 5,475, equalling a little over seven per cent, sustained some degree of injury during the year, of which number 122 were fatal, one permanently totally disabled, 151 permanently partially disabled, 5,201 temporarily totally disabled, of which number 1,720 received compensation, and 3,481 returned to work before the expiration of the two weeks' waiting period, and received only the medical and hospital attention provided by the Law.

The first year's operation of the law experienced 6,801 accidents, of which 136 were fatal, two permanently totally disabled, 89 permanently partially disabled, 6,574 temporarily totally disabled, of which number 1,431 received compensation and 5,143 returned to work before the expiration of the two weeks' waiting period.

The second year's operation witnessed 8,326 accidents, of which 307 were fatal, 11 permanently totally disabled, 184 permanently partially disabled, and 7,824 temporarily totally disabled, of which number 1,461 received compensation and 6,363 returned to work before the expiration of the waiting period.

The third year's operation recorded 5,820 accidents, of which 123 were fatal, 3 permanently totally disabled, 185 permanently partially disabled, and 5,509 temporarily totally disabled, of which number 1,881 received compensation and 3,628 returned to work before the expiration of the two weeks' waiting period.

The fourth year's operation, just ended, as stated, recorded the happening of a total number of accidents of 5,475, of which 122 were fatal, one permanently totally disabled, 151 permanently partially disabled, and 5,201 temporarily totally disabled, of which number 1,720 received compensation and 3,481 returned to work before the expiration of the two weeks' waiting period.

As will be noted from the foregoing the total number of accidents reported for the four years that the law has been in operation is 26,421, of which 688 were fatal, 17 permanently totally disabled, 609 permanently partially disabled, and 25,081 temporarily totally disabled, of which number 6,493 received compensation and 18,588 returned to work before the expiration of the waiting period of two weeks.

It will be noticed that the record for the fourth year's operation shows a decided improvement over each of the three previous years, and especially over the first and second years, in the number of accidents occurring, as well as in their character, which clearly indicates the returns being realized on the insistent crusade that has been continuously carried on in every part of the state in the interests of "Safety First."

Out of the 688 fatal accidents occurring during the past four years, compensation amounting to \$1,132,375.81 was awarded in 214 cases, where cash lump sum settlements were permitted, and \$48,421.76 was paid on account of funeral expenses in connection with the fatal cases reported, which represents not to exceed seventy-five dollars in each case, which is the maximum limit under the provisions of the Act. The actual funeral cost for the 688 accidental deaths aggregated a little over \$160,000.00.

The funeral expense during the first year's operation of the law averaged \$350.00 per case. The second year the average cost was reduced to approximately \$175.00 per death, and the third year the cost averaged \$160.00, with the present year scaling down to an average of \$150.00. Undoubtedly it was the intent of the Legislature that funeral costs in each case should not exceed seventy-five dollars, but it is doubtful if the expense can ever be brought down to that figure, although the Board has used every possible argument to reach that most desirable end, and feels that it has accomplished something in having reduced the average cost from the \$350.00 obtaining the first year to \$150.00, the amount for the past year.

Of the 688 fatal accidents happening during the past four years 278 cases have been settled by awarding compensation to beneficiaries and dependents, of which 214

were in the form of cash lump sum settlements, as provided by the Act, leaving 64 cases drawing monthly compensation on account of refusal of the Board to authorize conversion of the monthly compensation payments into a cash lump sum.

From the foregoing it will be noticed that out of the total of 688 fatal cases, 316 had no beneficiaries or dependents, and as a consequence no claim for compensation was filed. These cases including 79 that are now pending and 15 that were rejected, with the 278 that have been settled, make up the total number of 688 fatalities for the four years.

The record of accidents for the past year indicates that out of a total of 74,000 workmen, 1,720, or about two and one-fourth per cent, were injured sufficiently to draw compensation, including death benefits, and that the amount so paid aggregated \$456,010.19, or an average of nearly \$300.00 each.

By comparing this state's record as to money paid injured employees under the old personal liability system and compensation, the advantage to the workmen of the latter will be readily recognized. It is safe to estimate that not over ten per cent of those injured during the past twelve months would have had any standing in court, and in the event that they were able to reach a hearing before a judicial tribunal, not more than one in ten would have secured a verdict, which would have reduced the possible number recovering anything to not over 18 out of the 1,720.

Again the record of the courts of this state in personal injury verdicts indicates that the average amount that would have been awarded to those who might be successful would not exceed \$2,000.00 for each case, or a total recovery of not to exceed \$36,000.00, as against \$456,010.19 that has been received under the compensation system.

Despite the great disparity in these figures, it is doubtful if the cost to the employer has exceeded what it would have been under the old system, with its heavy court costs and its expensive army of high priced lawyers.

The figures submitted in this report clearly prove that the cost of accidents to the employers of the state has been exceptionally low. The operators have endeavored to furnish a lucid explanation as to the meaning of this low accident cost, which has been light under all three plans as

compared to the experience in other states operating under compensation laws. The conclusion reached by our statistician, with which the Board is in accord, is that the real cause back of these gratifying figures exists in the fact that all employers and employees in the state have been, and are now, engaged in a most active rivalry to surpass in the Safety First crusade, which has been accorded the premier position in all operating plants in every section of the state.

The safety prevention movement has secured a firm foothold among all the laboring men of the state, as well as the operators, as is clearly evidenced by the cash prize inducements being offered to foremen and superintendents of mines, mills and smelters by the operators, as well as to men in charge of all industrial plants, for the best record covering the prevention of accidents. Cases have come to the notice of the Board where these cash prizes have represented almost as much money as the salary to which the man was entitled. The answer to this movement is clearly illustrated in the reports filed with the Board from day to day, showing a steady decrease in the number of accidents occurring in the different industries of the state.

Aside from the humanitarian features involved, accidents now cost a certain amount of money and represent an important item on the cost sheet. Managers and superintendents directing operations, as well as foremen and shift bosses looking after the individual work of the mines, mills and smelters, are now held to a strict accountability for results in the safety line.

The old days when the record of operating plants was made up solely from the time sheets balanced against the shipping invoices, regardless of cripples or widows or orphans made, have gone forever. Formerly the chief thought of those in charge of operations was how many tons of ore could be extracted during the shift and how many could be put through the mill or smelter in eight hours; also what amount of ground could be broken, or what number of logs scaled, or how many carloads of lumber produced; but now things are changed and the cry of "get in the collar" no longer governs from the turnsheet at the top of the shaft to the sill of the lowest level, but instead the password is

"Safety First." The inevitable result of this gratifying change has really exceeded the most enthusiastic expectations, and is reflected in the records of the hospitals and first aid stations.

The accident record for the past four years, as well as the accident cost for that period of time, is best illustrated by the following tables, compiled from the record up to the end of the fiscal year, June 30, 1919.

COMPARATIVE ACCIDENT RECORD FOR FOUR YEARS.

Number.	1st Year	2nd Year	3rd Year	4th Year	Average
Accidents Reported	6,801	8,326	5,820	5,475	26,421
Fatal Accidents	136	307	123	122	688
Totally Disabled	2	11	3	1	17
Partially Disabled	89	184	185	151	609
Paid Disability Comp.....	1,431	1,461	1,881	1,720	6,493
Return Work 14 days.....	5,143	6,336	3,628	3,481	18,588
Cases settled	1,418	1,428	1,830	1,261	5,937
Cases pending	2	18	9	7	36
Cases under pension	11	12	14	28	65
Cases current payments	0	3	28	124	155

COMPARATIVE ACCIDENT COST FOR FOUR YEARS.

Number	1st Year	2nd Year	3rd Year	4th Year	Average
No. Employers under Act.....	830	1,518	1,944	1,970	1,565
No. Employees under Act.....	61,000	68,000	72,000	74,000	68,750
Per Cent Injured	11%	12%	8%	7%	9½%
Per cent Compensable	2⅔%	2½%	2½%	2½%	2½%

"SAFETY FIRST"

"Out of this nettle danger, we pluck the flower of safety."

—Shakespeare

Avon's bard, in the single line visualized centuries ago, covered most lucidly the crusade for "Safety First:" "Out of this nettle danger, we pluck the flower Safety." If the operator and workman will but keep in mind Shakespeare's truism, there will be fewer accidents and less suffering, and Safety First's objective will be speedily realized.

The words of the immortal poet clearly indicate that the propaganda of Safety First was being effectively preached to the generations that are gone, but even long before the days of Shakespeare, as disclosed by the "Laws of Moses," the teachings of Safety First were being disseminated. The Mosaic code, containing the rules laid down by Moses for the protection of the sons and daughters of Israel, set forth effective safety rules that were as comprehensive for accident prevention as are those of today.

It is evident that the Safety First movement has been with us in some form since the day that the serpent caused the first accident in the Garden of Eden. The passing civilizations have but served to develop and strengthen it.

Last week the New York Daily World, editorially, had the following:

"During the war, naturally, the "Safety First" campaign did not attract so much attention as in quieter days. But the fact that during the nineteen months the United States was at war 56,000 American soldiers were killed in Europe, while during the same period 226,000 men, women and children were accidentally killed in the United States, must demonstrate the constant need of educating the people in guarding against avoidable loss of life. The figures carry their own lesson."

Dr. Rubinow, America's authority on industrial accidents, estimates that 40,000 workers suffered accidental death in the industrial field in this country last year, and that over 2,000,000 were injured. These statistics indicate that an accidental death occurs each quarter of an hour, while every twenty seconds records the injury of some toiler in the nation's work shops.

Prof. Rubinow's figures are confined to the industrial field, while the estimate made by the New York World covers all accidents, industrially and otherwise. Considering only the industrial accident death list, it is evident that it exceeds by many thousands the fatalities of Pershing's army, year for year, and means that we still have a war to contend with, as evidenced by the casualties contributed by America's industrial battlefield.

Before the advent of workmen's compensation laws, during the past decade, little dependable statistics were compiled covering the number of accidents happening in the industries. Workmen's compensation laws brought the Safety First crusade, and with it carefully compiled accident statistics, which now has first place on the bulletin boards.

The employee has joined with the employer in the great work of accident prevention, and it is difficult at the present time to forecast just how great the result of the movement will be. However, the fact is conceded that it has brought about a most remarkable decrease in accidents. It is stopping the waste in human effort, thereby effecting universal economy, which can only be attained through the conservation of life.

"Safety First" Is the Password.

If we were infallible, "Safety First" would not only have but little meaning, but the term would be superfluous. However, while we may construct "fool-proof" machines, man never was, is not now, and never will be a fool-proof agency. He will constantly and continually commit errors which are likely to result in disaster not only to himself but to others. Even the most careful man at times will take a chance with a full knowledge of the danger he is inviting. To correct this innate tendency in man the Safety First movement was launched.

From a rather small beginning the Safety First propaganda has waxed great until now the phrase has become a household word, and is even used as a slang term in connection with matters entirely foreign to those responsible for its origin. In industrial life the expression means that each individual shall personally see to it that the place where he works is as safe as reasonable precaution can make it; also that his tools are in regular and proper condition; that

the machine which he operates is protected with all reasonable and necessary safeguards; and above all this, to see that his actions and conduct in his place of work shall be at all times prudent and thoughtful to the end that safety shall not be sacrificed on the altar of carelessness.

Many of the employee's necessary requirements also apply with equal force to the employer, with the exception that in the workman's case it means that he must at all times have a thought for the welfare of his fellow workers, restraining the impetuous and careless, and instructing the new hand in the unfamiliar work. He can thus illustrate most effectively the God-given attributes of the brotherhood of man.

Unfortunately, in all lines of industrial endeavor there are workmen who seem to think that they are guilty of cowardice when taking even ordinary precautions to insure against accidents. Many of the new workmen who are ambitions, while inexperienced, fail to realize the personal equation embodied in the Safety First injunction. Apparently they fear the ridicule of their experienced fellow-workmen, who on account of their long experience have discarded the precautions which, while unwise for even them to overlook, dare not be discarded by the inexperienced. They attempt to overcome their natural fear with the cry of "God hates a coward," and boldly dash in to do the things which the experienced man can possibly do, but which, unfortunately, they are unable to do with safety. The new inexperienced workman must overcome the fear of ridicule. It is better for him even to be laughed at than to lose a member in trying to convince the thoughtless that he is brave.

A further prolific cause for accident is found in the new and inexperienced workman who is anxious to secure recognition as a skilled and efficient worker. While this ambition is laudable, his anxiety for advancement should in itself create caution instead of disregard for safety regulations. The new man should realize that the failure to exercise necessary caution, which means observing Safety First, has prevented many a man from ever achieving the ambition to which possibly his natural skill and efficiency entitled him.

The Safety First propaganda has resulted in a material decrease in the loss of life and limb through industrial accidents, and it is to be earnestly hoped that the man to whom it means so much will never cease to regard it as his ever present protector and friend. It was created to save him, and through him will achieve its objective if he will but keep in mind the admonition in Proverbs that "The prudent man looketh well to his going."

Safety Provisions.

The safety provisions of the law, comprising part V of the Act, indicate that the Legislature that enacted it possessed a comprehensive conception of the economic waste caused by the useless sacrifice of life continually occurring in the industries. The legislative members certainly appreciated the fact that accident prevention is the very best possible protection and far more satisfactory to the man who toils than compensation for an accident that might possibly have been avoided.

Therefore, believing that the so-called unavoidable accident could be largely eliminated, the Legislative Assembly, through the medium of sections numbers fifty to fifty-five of the Act, authorized the Board to make and enforce safety orders, to prescribe safety appliances and to establish and maintain standards of safety in all industrial plants. The Board is further authorized and directed to inspect all plants and industries, where men are employed in occupations designated by the Act as hazardous, for the purpose of ascertaining if proper care is being exercised for the safety of workmen, and to insist upon the installation of whatever safety appliances may be necessary for the employees' protection.

The employer is expressly prohibited by the provisions of the Act from constructing, maintaining or operating any place of employment that is not safe. He is further obliged by the law to provide a safe and sanitary place for his workmen. The removal of any safety device, or interference with the use thereof by either employer or employee or anyone else is punishable as a misdemeanor on account of violation of the Safety statute.

The provisions of the law specifically delegate to the Board full authority to inspect all working places, and to make and enforce orders for the care and safety of such

working places. The law also directs the Board to inspect, at least once during each calendar year, every place where power-driven machinery is used to determine its safety conditions. These directions have been faithfully observed by the Board, and its members appreciate the efficient co-operation at all times accorded them by the operators and employers, who have with only one exception promptly complied with every safety recommendation made.

The inspection crusade conducted by the members of the Board and the several safety inspectors under its jurisdiction establishes the fact that in every locality the work of safety protection is going forward with an enthusiasm that will surely result in steadily reducing the accident record of every operating industrial district in the state.

Necessity for Safety Provisions.

During the past four years the Board has been in close touch with the operating industries of the state, and has everywhere found employers anxious to co-operate with the spirit of the law's provisions, requiring the installation of safety appliances for the protection of the physical welfare of their employees.

The state, through the medium of its Legislature, wisely concluded to impose upon its employers operating hazardous industries certain requirements looking to the safety of workmen in all lines of industrial endeavor. Hence safety appliances wherever feasible must be installed.

Previous to the enactment of compensation laws employers realized that failure on their part to provide proper safeguards for machinery and safe places in which to work was interpreted by the courts as evidence of negligence on their part, often resulting in heavy damage verdicts against them on account of such negligence. Such experience caused them to realize that from a financial viewpoint it was far cheaper to provide proper protection for their workmen, both in the matter of safety appliances and safe places to work. The change prompted by this reasoning, while encouraging, was slow and unsatisfactory until after the compiling and publishing of reliable accident statistics through compensation laws brought the employers to a full realization of the

terrible loss that had been occasioned in life and limb of workmen through neglect to provide proper safeguards and safe sanitary working places.

With a thorough understanding of what had been happening, the employer and employee turned their attention to providing a remedy for the trouble. Possibly the first concrete thoughts along the line of accident prevention owed their origin to the financial features involved. However, it soon evolved from that state and developed into an idealism which prompted humanity in its efforts to protect the lives and safety of those compelled to seek a livelihood through hazardous employment.

While, as stated, possibly the interest of the state in the matter was one of economy, yet it must be realized that back of such movements is always found the human heart sentiment, pleading for the preservation of life. The protection of human life and the guarding against bodily injury are the cardinal elements of actual human existence. The exigency for effective collective co-operation in life saving is so apparent and necessary in this age of tremendous operations that the individual is being looked after by the state.

Safety Inspection Bureau.

Previous to the enactment of the Montana Compensation Law, the state enjoyed no legislation providing for the safety of workmen. Consequently with the passage of the present law, carrying its safety provisions, came the first move in the interests of industrial safety.

One of the chief objects of the Compensation Law, as interpreted by the Industrial Accident Board, was to reduce the number of accidents happening in the field of industrial endeavor. To accomplish this the Board organized the Safety Inspection Bureau, and endeavored to enlist the active support and co-operation of employers and employees in the crusade for accident prevention.

In its safety propaganda work the Board labored under the impression that the best results could be obtained by enlisting the active enthusiastic co-operation of operators and their workmen. Therefore, with that objective, the safety inspectors have been instructed to impress upon those operat-

ing the plants they inspect that they are not there to criticise the operation but instead to co-operate with the management in an endeavor to eliminate as far as possible the expense of accidents.

The Bureau of Safety Inspection, organized solely for the purpose of preventing accidents, was recognized in a very substantial manner by the members of the Fifteenth Legislative Assembly, by enactment of a law merging the Boiler, Coal and Quartz Mine Inspection Departments, and placing them under the supervision and direction of the Industrial Accident Board. This resulted in the safety inspectors of the Bureau being made up of three boiler inspectors, two quartz mine inspectors and one coal mine inspector. Following the regular session of the Sixteenth Legislative Assembly, one of the quartz mine inspectors was dropped.

Supplemental, or in addition to the regular work of these inspectors they inspect all plants in the state where workmen are engaged in hazardous employments. The effect of this is to broaden the field of the inspectors' work, and in so doing place the safety inspection work in the hands of skilled and competent men. They realize that their safety inspection work is predicted upon the hope of rendering possible aid to employers and employees in the task of preventing accidents.

Plants are inspected by the safety inspectors with a view of discovering dangerous places and practices in order that they may be called to the attention of those in charge to the end that correction may be made possible. In all cases where the installation of safety devices of any kind will tend to minimize the likelihood of accidents, employers are requested to install them, and without exceptions promptly comply.

The safety inspection work is divided into districts to the end that every plant may be reached with the least possible expenditure of effort. Boiler Inspector Moran covers the Northern district with headquarters at Helena, while Inspector Prater covers the Eastern district with headquarters at Billings, and Inspector Coburn, the Western district with

headquarters at Butte. Quartz Mine Inspector Orem covers the quartz mines of the state and Inspector Griffin, the coal mines.

In all industrial plants with steam motive power, the boiler inspectors, after finishing the inspection of the boilers, devote a brief space of time to an inspection of the safety conditions obtaining in the plant. The same condition governs as to Quartz and Coal Mine Inspectors. In each instance the inspector, after finishing the inspection work relating directly to his division, inspects as to the safety conditions. As a consequence the entire state is covered each year by these five inspectors who, in addition to their own special work, care for the greater portion of the safety inspection work. The large operating plants and those electrically actuated are inspected as to their safety provisions by the members of the Board.

Each year sees the inspectors of the Bureau becoming more expert in the detection of dangerous conditions, and in pointing out to employers desirable changes in the matter of safeguards and safety appliances. The operator welcomes the inspections, as he realizes that his cost of operation is materially reduced by the prevention of accidents.

Since the organization of the Bureau 1,722 plants have been inspected through the medium of 4,125 inspections, and upwards of 6,000 separate safety recommendations have been accepted and acted upon by the employers of the state. This work has returned in fees collected \$11,038.38 at a cost of only \$2,315.00 for traveling expense.

This inspection work has accomplished a great deal of good, as is indicated by the steady falling off in accidents.

Unavoidable Accidents.

Many of the so-called unavoidable accidents will be found upon thorough investigation to have resulted from some avoidable cause against the recurrence of which proper future precautions can be taken. Accidents of the character specified result from many and varying causes, such as carelessness, thoughtlessness, oversight or the natural tendency of man to take a chance.

When unavoidable accidents occur, they should not be passed over as such, but should be searched into thoroughly to determine the proximate cause. As long as men are care-

less and negligent accidents will happen, and be referred to as unavoidable. The facts governing each one clearly and fairly investigated, regardless of where the blame may fall, will serve as an effective education and warning, resulting in the adoption of precautionary measures likely to prevent recurrence.

In all hazardous occupations the first thought and consideration should be for the prevention of accidents. Such a course saves time and money, avoids suffering and improves conditions, because it creates a better and higher industrial ideal, and establishes a closer relationship between the employer and employee.

It is idle to figure that accidents will not happen no matter what precaution is taken, but their occurrence can be greatly reduced. Operators realize that in spite of the most effective organization and careful instructions machinery will fail, and human judgment be at fault. Accidents, however, that are caused by carelessness, thoughtlessness, ignorance or absent-mindedness can and should be avoided. The workman who commences his task as though he were half asleep is certain to come to grief. He who allows his mind to wander from the work in hand, even for a moment, will likely finish the day in the hospital.

Every operating plant by the thoughtful exercise of caution can at least to some degree change "preventable injury losses" into profits, with all the other benefits that attend such a change. Safety pays because it saves, and by effective mutual co-operation and organization between the operator and the workman many beneficial changes can be realized through the reduction of the so-called unavoidable accidents.

The unavoidable, as well as the avoidable, accidents will be found in the majority of cases to be due to a falling short in either observation, experience or judgment of the workman, which means that the unfortunate victim failed to give the observation and attention that the work demanded. Workmen who are recognized as cautious, thoughtful and careful, even though they may be slow, are everywhere preferred to the workman who is reckless, and who in a thought-

less moment may, on account of his recklessness, bring disaster upon himself and fellow workers, as well as expense to his employer.

A cautious workman is the greatest factor of success in any employment of a hazardous nature. If it were possible to select a crew composed entirely of cautious workmen, there would be few of the so-called unavoidable accidents to record. The duty of both employer and employee is to convert the class of accidents described as unavoidable into the class that is recognized as preventable, and then see that they are prevented.

Accidents That Are Easily Preventable.

Until employers and employees work together in perfect harmony and full accord, accidents recognized as preventable will continue to occur. Employers may take every precaution in the matter of providing safeguards, safety appliances and good working conditions, but unless the employee does his part a "preventable accident" will not be prevented.

In preventing the class of accidents recognized as preventable, the doctrine of Safety First, with its rule for safety guards, applies with especial force and significance. Frequently a workman objects to the installation of a safeguard on the machine that he is operating because, perhaps, he is not accustomed to its use. He claims that he finds it is in his way, and possibly at first it does annoy him, but more often his objection is due to his pride being touched, as he considers the use of the guard a reflection upon his capability and care. This delicacy must be overcome by delicate methods.

Many cases have come to the notice of the Board where the operator has deliberately removed safety guards, and insisted upon being allowed to take whatever risks were involved. Eventually men indulging such vagaries will come to accidental grief. To succeed men must be careful and welcome any safeguards thrown around their work. It costs the employer money to install safeguards, and it is done for the protection and benefit of the man who is unwittingly rejecting them. Their use casts no reflection upon either his ability or work, and it is only the foolish and foolhardy that refuse to accept their protection.

The installation of safety devices will accomplish much good, by acting as a constant reminder to the thoughtful workman to exercise care and caution, thus avoiding accidents that are easily preventable. However, no system compelling the use of safety appliances will bear fruit unless the workman himself lends his serious attention to the object and purpose of the installation of the safety device.

While safety appliances and preventive measures accomplish a great deal, yet the laborer himself must contribute the main factor to bring about the elimination of preventable accidents. "He can if he will," and if he will but realize that compensation is a poor substitute for bodily ill, "then surely he will." His sensibilities must be aroused to a realization of the fearful burden that he is so unwisely placing upon his shoulders through being thoughtless, careless, slovenly, incautious and unmindful of the detail of the work in which he is engaged.

The payment of compensation is but an economic method of considering the hazards that attend industry. Its co-efficient is "safety," and the elimination of accidents depends upon the ingrafting of this idea into the mind of every laboring man. When this is done, there will be a marked falling off in the distressing accidents that have been unnecessarily connected with all forms of hazardous employment.

The important thing is to impress upon the minds of those who work in dangerous places the necessity for constant caution, coupled with interest in the thing they are doing and the right and safe way to do it. If this thought is kept in mind as an inseparable part of the work in hand, there will be but few accident cases to record. If the operator will but substitute prudence for negligence, care for carelessness, and cultivate a thoughtful interest in the work that he is doing, accidents with their terrible results will be of rare occurrence.

"Whatsoever a man soweth, that shall he also reap."

Gal. Chap. 6:7.

A WORD TO THE EMPLOYEE.

The workman should always remember that compensation is only aid extended for loss of earning power, and does not repair a physical injury. This thought should make him alert to avoid its necessity, for prevention is far better than any cure.

To all of us is denied the privilege of living over the past, and we should, therefore, so live the present that hapless regrets will not be our lot. The number of strong virile men crippled for life is appalling, and it should be the ambition of the workman not to join the long list of unfortunates through needless carelessness. Give the matter thought; take pride in your physical perfection to the end that you may be careful of it, for it is your life inheritance—your one great asset in fighting life's battle.

While Montana's Compensation Law provides that employers shall comply with certain rules and regulations to insure safety for employees, it does not, and in the nature of things cannot provide that an employee shall take all necessary and proper precautions for his own safety. The natural assumption is that every man is sufficiently interested in his own safety to watch out for it without legislative action directing him so to do, but unfortunately such is not the case, for the majority of accidents are directly chargeable to the carelessness of the person injured, caused generally by some false premise or faulty reasoning prompting him to take a chance, where there is neither reason nor justification for doing so.

While compensation prevents the workman suffering actual distress and protects him from the fear of becoming a burden upon society, yet it does not restore a maimed life nor rebuild a broken frame. The prevention of an accident is far better than the payment of compensation after it has happened. Thoughtful precaution is easier and cheaper, and certainly far more satisfactory than lifelong regret.

There is an unquestioned, undisputed obligation resting upon every workman to eliminate the likelihood of preventable accidents, not only on his own account but out of consideration for those dependent upon him and those working with him.

To the workman the preservation of his bodily perfection should be the ever present influence to justify caution. It should be a matter of great pride with every thoughtful man in every kind of occupation to preserve un mutilated the perfect body entrusted to him by his Creator. Disregard of danger brings a relaxation of caution, resulting in accidents that could easily have been avoided. At all times the workman should be alert and cautious, with mind and thought constantly on guard to protect against the accidents that so often occur through a second's thoughtlessness or a moment's carelessness.

The necessity for protection against accidents cannot be too strongly impressed upon the mind and memory of the man who toils. Disregard or lack of caution makes him the sufferer, for monetary compensation after he is crippled for life is at best but a poor substitute for the limb that is gone or the life that is crushed. You cannot afford to take a chance. See to it as far as it lies within your power that your place of work is safe; that the machine you are operating is properly guarded; that the tools and material you are using are in good safe condition.

Every workman should keep in mind that to a great extent the lives and safety of his fellow workmen depend upon his action. Therefore, workmen, be your "brother's keeper," as well as your own, and profit by the admonition of Cyrus that, "He is safe from danger who is on his guard even when safe."

EMPLOYERS AND SAFETY FIRST.

In addition to complying with the provisions of the law, requiring the installation of safety appliances, all the large operating companies of the state engaged in hazardous work have installed Safety First departments, in charge of specialists who not only endeavor to train the employees as to the necessity for Safety First, showing them how to apply this rule in their work, but also give proper instructions in First Aid.

The propaganda of Safety First and First Aid has become so extended and far reaching that in the reports received by the Board, covering accidents occurring in remote districts where the securing of prompt attention of a sur-

geon is difficult, the report sets out, among the other details, that "First Aid" was rendered immediately following the accident. Doubtless many injured workmen owe their lives to this prompt efficient service.

In the advancement of this safety work it is gratifying to learn that employees everywhere readily and gladly cooperate with the employers to disseminate first aid instructions. They recognize its value and are anxious for suggestions and advice as to how best to pass on the knowledge that will eventually make the slogan of "Safety First" the saving cry for the "toiling masses" in all lines of industrial endeavor. In this great work the employer is bending every energy to render effective service, and the result will be, in addition to its humanitarian features, something of marvelous economic value to mankind.

Among the operators actively engaged in this work the Anaconda Copper Mining Company, under the able direction of Safety Engineer Chas. W. Goodale, takes precedence. It maintains a department under a special corps of directors with competent assistants at a central plant in Butte to serve the mines; also one at the smelting and acid plant in Anaconda; one at the zinc reduction works and copper wire and rod mill at Great Falls, and one at the lumber mills at Bonner.

Under the direction of Engineer A. S. Richardson, the Company publishes a well edited, specially prepared monthly journal, the "Anode," devoted exclusively to the advancement of accident prevention.

Another large operating company in the district, the Butte & Superior Mining Company, also maintains a perfectly equipped Safety First department under the supervision of competent Safety First engineers, supported by an able corps of assistants. This company also publishes a monthly journal, the "Spelter," which is devoted to Safety First thought and ideas.

All of the other operating companies in the Butte district maintain First Aid stations with safety engineers in charge, but in no instance are these smaller operating companies as well equipped with Safety First departments as the two companies mentioned.

The East Helena smelting plant, which is the Montana branch of the American Smelting and Refining Company, makes a specialty of Safety First work, and has a department exclusively devoted to that feature of the operation under the direction of a special safety engineer, assisted by competent aids. As in the case of the mining companies mentioned, the East Helena plant also has a monthly publication, the "Crucible," which is devoted exclusively to Safety First propaganda.

The columns of the three special publications named are replete with Safety information, appropriately illustrated and the cause of Safety First has been and is being greatly advanced as a result of the monthly appearance of these bright, breezy, influential magazines.

As was the case last year, the East Helena plant of the American Smelting and Refining Company has the best accident record of the year as compared to the number of men employed, and the hazardous nature of the work. An inspection of the plant as to its safety prevention equipment will explain why the company has not had a fatal accident in the past ten years, and also why during the past twelve months they have paid only \$965.68 in compensation, with an average force of about four hundred men for the year, engaged in what is recognized to be an exceedingly hazardous occupation.

During the four years that the compensation law has been in operation, the East Helena plant has paid in compensation a total of only \$4,069.05, representing an accident cost of less than one-sixth of one per cent of the payroll, covering an average force for the entire four years of nearly five hundred men. This certainly establishes the worth and business economy of accident prevention carried to the superlative degree. The company has installed every known safety device and appliance to prevent accidents, and the determination to forestall the possibility of their occurrence seems to take precedence over every other one objective throughout the entire works.

The splendid accident record established by this company cannot be credited to the special intelligence of the workmen, because the company's report, covering their alien and illiterate employees, indicates that practically the entire

force of laborers is made up of foreigners with little or no education. However, an inspection of the plant indicates that what these workmen may lack in education is made up in enthusiasm to co-operate with their "bosses" in preventing accidents. The men, as well as the company, are amply rewarded for their devotion to Safety First, which means lengthened lives, saved bodies, whole limbs, eyes than can see and ears that can hear, which leaves no room for suffering in happy homes in a community where the hospital is the only institution "broke."

Throughout all the industrial sections of the state employers and employees are co-operating in the work of Safety First, not only in the matter of spreading the propaganda and in installing safety devices of all kinds but also in the adoption of any and every precautionary measure that promises to reduce accident occurrence. This work includes the education of the laboring man to be thoughtful and careful, and to induce him to acquire the Safety First habit.

Monthly reports received by the Board from the different industrial plants indicate that interest in accident prevention work is steadily increasing. In practically all industrial operations of moment the men have organized what are termed Safety First Committees, made up of the foreman or shift boss as the active head, assisted by sub-committees made up of the different "shifts" of men, with the heads of the various departments serving as chairmen, who are in turn assisted by committees selected from the main body of workers. These committees are reorganized every thirty days, thus providing rotation in chairmanships to the end that those showing the greatest interest and adaptability in the work may have their opportunity.

The work of these committees is very effective, as they study the cause responsible for accidents at the time of their occurrence, with the sole object in view of remedying the cause whatever it may be to the end that there may be no recurrence. This co-operative work is accomplishing much good, and the results are exceedingly gratifying. The reports reaching the Board from each one of the industrial operating centers of the state carry the encouraging message that there is a falling off in accidents, due undoubtedly to the active campaign for their prevention.

The engineers in charge of the efficiency bureaus of all of the Butte mining companies report a falling off in accidents for the past year as compared to former years. A similar report reaches the Board from the Smelting companies operating at Anaconda, Great Falls, Butte and East Helena; likewise the operators engaged in coal mining at Roundup, Red Lodge, Bridger, Bear Creek, Belt, Stockett and Sand Coulee report a decrease in accidents as compared with former years. Similar reports have been received from the Safety First departments of the companies operating in the logging and lumbering districts of Bonner, Missoula, Somers, Eureka, Libby and Warland.

Last week, or from the 22nd to the 28th of June, 113 of the country's railroads instituted a "Safety First Week" to ascertain the result of a concentrated effort to bring about as near as possible a "no injury week." Results at this writing are not at hand except from the Northern Pacific Railroad, which shows that out of a total of 34,336 employees none were killed and only sixteen suffered slight injuries. This record represents a decrease of fifty-eight per cent in the number of accidents happening as compared to the same period last year. It is stated that many of the roads participating in the movement suffered no accidents whatever during the week, which serves to show what can be accomplished by concentration of effort. It is evident that all that is necessary to prevent at least fifty per cent of the accidents that are occurring in industry is for all those who are interested to make up their minds to constantly do their utmost to prevent accidents. Concentration on Safety First will bring the results.

INDUSTRY'S ACCIDENT COST.

Since the Compensation Law went into effect four years ago, Montana has suffered 688 fatal industrial accidents. The average age of these victims was thirty-three years, which computed by the American Experience Table of Mortality fixes their life expectancy at thirty-two years. Accepting this as the average, these 688 accidental deaths represent a time loss of 22,015 years. Based on Montana's

average daily wage of \$4.50 per day for three hundred days per year, these deaths represent an economic monetary loss of approximately thirty million dollars.

The wage and time loss chargeable to the 26,421 disability accidents occurring during the past four years will exceed the death loss, which combined means an appalling total loss of sixty million dollars representing the lost time for Montana's industries on account of the industrial accidents of the past forty-eight months. This loss in its entirety falls directly upon society, and surely justifies the earnest attention of the people at large. It is the people's interests that are affected, as they lose from the decease in productivity caused by the curtailment of productive effort by the injured man, and also they suffer from the lowering of industry's general efficiency. In addition they are compelled to care for the dependents of the killed and disabled workmen, attended by a consequent lowering of standards that has the effect of still further decreasing production. Therefore if only considered from the viewpoint of economy, the terrible loss in time and effort occasioned by industrial accidents demands the attention and close application of every citizen of the commonwealth to prevent such paralyzing waste.

Industry also suffers a heavy indirect loss due to accidents, because the effect is cumulative in that a new man employed because of the incapacity through injury of the experienced workman is much more subject to accident than one who is familiar with the work in hand. Hence the first accident accentuates the ordinary chances for a second accident, which disadvantage or handicap falls upon industry, as well as the fact that it takes the new man several "shifts" to reach the standard of efficiency possessed by the man sent to the hospital or the graveyard by the accident.

Apparently the major portion of the burden caused by accidents falls on the laboring class, due to the loss of wages represented by the loss of time. However, this loss eventually reaches society which in the final analysis is the bearer of the entire burden of time loss, resulting from accidents in the field of industrial endeavor.

In the general consideration of the question of wage loss due to accidents, the workman injured and the employer who pays the compensation have been the only actual factors considered in computing such loss. This is an error, as the indirect loss through the cumulative effect of accidents, attended by the weakened morale of the workmen, in the aggregate means that the indirect loss is greater than the direct. However, when the combined loss is considered, it is so staggering as to demand the best thought and energy of everybody in the effort to reduce and minimize the fearful waste.

Work of the Board

The work of the Board may reasonably be considered as divided into two general classes or functions: first, the duties that might properly be classified as approaching something of a quasi-judicial nature; and the other, those of purely an administrative character, embracing the regulation in general of the insurance and compensation matters coming within the scope of the Act. In the discharge of these duties the Board has endeavored to prosecute a vigorous campaign in accordance with what it believes to be the spirit of the law, by broadly applying its benefits.

In the course pursued by the Board it has held that these benefits are twofold, securing first the payment of compensation to injured employees, and second, as far as possible, preventing accidents, thereby rendering unnecessary the need for relief on account of reducing the likelihood of accidents happening. The proper discharge of this duty means the prompt furnishing of relief to the unfortunate workman, injured under conditions which bring him within the purview of the Act. While this is thoroughly expressive of the palative principle of compensation, yet it is generally admitted that the more proper and effective feature is the protection of the laborer against the occurrence of the accident.

The experience of the past four years has unquestionably established the fact that the law is practical and workable from every compensation angle. It has also disclosed the fact that the Legislature vested the Industrial Accident Board with peculiar and rather unusual power, which was added to by the last Legislative Assembly. While at times the provisions of the Act have seemed almost indefinite, yet it is probable that this was intentional to the end that it might the more readily meet local conditions existing in different localities that could not be anticipated by the Legislature, and hence were left to the judgment of the Board.

During the four years of the Board's incumbency the members at all times have been fully alive to the responsibilities that have rested upon them in the matter of administering the law. They have always tried to realize and fully appreciate that the character of the work to be done

required a very high conception of its nature and demanded a judicial poise and impartiality in passing upon the questions coming before them for determination.

At all times, with a perfect understanding, the members of the Board have unreservedly devoted themselves to the task assigned them, with a full realization of the magnitude of the work in hand. They now, after four years' experience, appeal to the employers and employees of the State to favor them with whatever criticism or suggestions they think may be of assistance in connection with the task of administering the law, as they realize that it is only by such co-operation that the work can continue to progress satisfactorily.

A moment's attention given by the reader to this report as compared to the three that have preceded it will serve to indicate the ratio at which the work has been increasing in volume; added to which are the many complex questions constantly arising before the Board for adjudication.

There has been neither friction nor dissension between the members of the Board in connection with their work. Differences of opinion have arisen concerning matters of administrative policy, but in every instance friendly considerate discussion has served to reconcile such differences, with the result that at the end of the Board's session there has been unanimous agreement as to the proper course to pursue, the method to follow or the ruling to make.

That the Board is doing its work with at least average success is evidenced by the gratifying fact that accidents are decreasing, and that settlements of controversies are steadily growing easier. Four years without an appeal to the courts from a ruling made, with one possible exception, is not a bad record in view of the fact that upwards of 26,000 questions have been passed upon.

HAZARDOUS AND NON-HAZARDOUS OCCUPATIONS.

The matter of determining under the provisions of the Montana Act what is "hazardous" and what is "non-hazardous" employment has given the Board much trouble. Despite the fact that it is quite evident that the question is

one for judicial determination, the Board has felt called upon to discriminate as to who should be admitted under the Act as an employer engaged in inherently hazardous occupation and who should not on account of the occupation being non-hazardous.

That it was the intent of the Fourteenth Legislative Assembly to create two distinct classifications is evidenced by the action of the Sixteenth Legislative Assembly in amending Section 4 of the Act in such a manner as to make the line of demarcation between the classifications of hazardous and non-hazardous employments more pronounced. Section 4 and its subdivisions, as amended by the Session Laws of 1919, lists the occupations considered or recognized as hazardous, and Section 5, as interpreted by the Attorney General, gives the Board the right to add to the list only under certain fixed restrictions.

Therefore, in view of the expressed declaration in Section 5(a) that the Legislature intended by its enumeration to cover every hazardous occupation, the Board has felt justified in holding that before the law can be made applicable to an employment not listed in the Act, it must be clearly established that the non-enumerated occupation is of an extra hazardous nature, belonging to the class of employments which the courts have heretofore held to be hazardous and subject to the police power of the State. If in fact a business is not hazardous, no action or order of the Board can make it so, nor can the Board's action bind either the employer or the employee. Consequently if the Board admitted under the law an occupation that was non-hazardous, and permitted it to be classified as hazardous, in the event of an injury the employee might be able to effectively bring a damage suit at common law.

In its endeavor to fairly determine this question the Board has investigated at considerable length the application of similar laws in other states, thus securing many precedents to assist in reaching a proper conclusion. It finds that the consensus of many court opinions is that the scope of the Act is determined by the hazard of the business or enterprise in which the employer is engaged rather than by the degree of hazard to which any individual employee is exposed. This rule seems to govern in the interpretation

of the hazardous provisions of the compensation laws in the majority of states operating under such a law.

Employers and employees engaged in non-hazardous employment can secure the benefits of the law by joint election under Class Twenty-seven, Plan Three, at a premium rate of one-half of one per cent of their annual pay roll. Therefore it is evident that all employers may obtain the benefits of the Act, and until a court of competent jurisdiction has decided what is hazardous and non-hazardous the Board will continue to be governed by the provisions of Section 4 of the Act, as amended by the Session Laws of 1919.

Consequently the Board has rejected all applications received from employers operating a business that is solely and entirely non-hazardous, advising the applicants that as they were not engaged in a hazardous pursuit, as defined by the Act, they could only receive the benefits of the law through the medium of Class Twenty-seven, Plan Three, as being engaged in non-hazardous employment.

In addition to the occupations enumerated as hazardous in the Act applications have been accepted from employers operating steam threshing and steam plowing outfits for hire; also lumber, wood and coal yards, coal docks, blacksmith shops, butcher shops, automobile garages, bakeries with power driven machinery, power driven sheep shearing outfits operated for hire, livery stables, and draying, trucking, teaming and transfer outfits. In this connection the Board has felt justified in considering hazardous any occupation where power driven machinery is employed in the conduct of the business.

The law as amended admits all of the employees of employers engaged in any of the occupations listed in the Act, regardless of the number of employees so engaged. If the employer has one workman steadily engaged in hazardous work, it serves to qualify all of his employees for admission under the protective provisions of the law.

ORGANIZATION SAFETY BUREAU.

Upon the recommendation of Governor Stewart, the Fifteenth Legislative Assembly enacted a law providing for the abolishment of the State departments of Boiler Inspection,

Coal Mine Inspection and Quartz Mine Inspection, and providing in lieu thereof that the Industrial Accident Board should select inspectors of boilers and inspectors of coal and quartz mines, and that the operation of these different inspection bureaus should be entirely under the direction and authority of the Board. In compliance with this law the Bureau of Safety Inspection was organized, composed of four boiler inspectors whose work was divided into districts, two quartz mine inspectors and one coal mine inspector.

No change was made in the personnel of the various departments, except that in the Boiler Inspection Department the force was reduced to three inspectors in the field, thereby reducing the department's expenses one-fourth. Inspectors Orem and McGrath of the Quartz Mine Inspection Department were retained until February, 1919, when Inspector McGrath resigned, leaving a vacancy that has not been filled and is not likely to be, unless it becomes apparent that Inspector Orem is unable to cover the entire field effectively.

The merger of these three departments into the Safety Bureau has not materially affected the work that was formerly done by the various departments. About the only difference is that now there is one central head for each inspector to report to and receive instructions from as compared to three department heads as formerly organized. The change saves the State the expense of maintaining separate departments and also of employing special inspectors for safety inspection work, as the inspectors of the Bureau do the safety inspection work in addition to their regular inspection duties. The elimination of this expense is no small item, and means a saving to the State of not less than \$15,000.00 a year.

To the end that the individuality of each of the five inspectors connected with the Bureau may be retained and the public become acquainted with what each one is doing, the Board has requested each inspector to furnish a brief statement in the nature of a report, covering the work he has done and is doing, to be included in this report. This will be found in the section immediately following the statistical tables over the signature of each inspector. Prefacing these reports, and included as a part thereof, are the finan-

cial statements and report from the Clerk of the Bureau, with tables showing the work done for the past year; also balance sheet showing the financial condition of each inspection department, which is operating on its own appropriation, although under the supervision of the Industrial Accident Board.

It is hoped that these individual reports of the different inspectors will prove of value, and if those who are interested will scan the financial statements covering the operation of the Bureau for the past twelve months they will find that the State is saving from \$15,000.00 to \$20,000.00 a year by following the consolidation recommendation of Governor Stewart.

Since the three departments of Boiler, Quartz and Coal Mine Inspection have been under the direction of the Board, 394 quartz mine inspections have been made at an expense of \$16,531.00, and 292 coal mine inspections at a cost of \$10,376.00, and 6,356 boiler inspections have been made, and 2,435 applications for engineers' license examined, returning in fees \$65,616.00 at an expense of \$38,574.00, leaving a net profit to the State of over \$27,000.00.

Since the change was made on March 5, 1917, three boiler inspectors have done more work each year than four did for any previous year. For the year ending June 30, 1919, Inspectors Moran, Prater and Coburn inspected 2,522 boilers as against 2,260 by four inspectors for the year 1913, which was the banner year under the old regime.

From the foregoing it will be noticed that the net earnings of the Department of Boiler Inspection since placed under the direction of the Board have been three times what they were for any similar period of time preceding the change. This is in addition to the earning made for the State by these inspectors in inspecting the safety conditions of industrial plants, as provided by Part V of the Workmen's Compensation Law, which work was done by them in addition to their work of inspecting boilers, and netted the State at least four thousand dollars.

RE: ACCIDENTS FROM GAS POISONING.

The Board has experienced considerable trouble in the matter of correctly determining the effect of exposure to poisonous gases as related to the provisions of the Workmen's Compensation Act providing compensation for industrial accidents. Possibly the most complicated case of this kind resulted from the escape of arsene gas in the Great Falls plant of the Anaconda Copper Mining Company on November 5th last.

There was apparently no known reason for either the existence or distribution of any appreciable amount of this gas through the plant. Its presence became manifest through employees succumbing to its influence. All told some twenty-seven workmen were exposed, attended by fatalities in five cases and varying lengths of disability in several additional cases, although the majority of the workmen suffering from the exposure returned to work either the following day or within the next few days.

The exception consisted of three cases in which the men exposed insisted that they were unable to return to work, and were retained on the company's pay roll for several months until the attending physicians advised that they could find nothing physically wrong with the men, and that there was no reason why they should not return to work. These cases are still pending under claims from the parties for disability compensation alleged to be due on account of the accident resulting from arsene gas exposure.

The B. & M. plant at Great Falls, the scene of the arsene gas trouble, experienced another peculiar accident on April 26th last, resulting in the death of two men from an explosion of zinc dust. Following the accident of April 26th, the Mill and Smeltermen's Union of Great Falls requested the Board to inspect the plant for the purpose of ascertaining if the operating company was taking every possible precaution to prevent a recurrence of the two peculiar accidents. The company also invited the inspection, which resulted in the Board setting May 14th and 15th last as the dates for inspecting the plant and operations of the company, and invited the officials of the Mill and Smeltermen's Union to accompany the Board on the inspection, and also the Director and Chief Metallurgist of the Montana State Bureau of

Mines and Metallurgy, a department of the State School of Mines at Butte. All of the parties invited participated in the inspection, and we take the opportunity of herewith quoting in full the report of Dr. C. H. Clapp and Prof. H. B. Pulsifer, reading as follows:

UNIVERSITY OF MONTANA,
STATE SCHOOL OF MINES.
MONTANA STATE BUREAU OF MINES AND
METALLURGY.

Butte, Mont., May 22, 1919.

The Industrial Accident Board,
Mr. A. E. Spriggs, Chairman,
Helena, Montana.

Gentlemen:

At your request of May 3, the Montana State Bureau of Mines has inspected the Boston and Montana reduction plant of the Anaconda Copper Mining Company at Great Falls, with representatives of the Mill and Smeltermen's Union of Great Falls, the management of the reduction plant, and your Industrial Accident Board; and this report is based upon the inspection. On May 14, H. B. Pulsifer, Metallurgist of the Bureau, went over the plant with three Union delegates and Superintendent A. E. Wiggin; and on May 15, C. H. Clapp, Director of the Bureau, and Mr. H. B. Pulsifer, accompanied by your Board, Superintendent Wiggin and the delegates of the Union, in a further inspection of the plant.

Of the twenty complaints and criticisms which were presented by the Union, we find them all to be of an ordinary nature and matters of which the plant management was already cognizant and remedying as rapidly as possible. In this statement we do not overlook the fatal accidents of November 5 and April 26, against recurrences of which the plant staff is taking even more than reasonable precautions. We mean that all the precautions and safeguards which the Union delegates mentioned have been also in the minds of the operating staff and either have been or are being put into effect as rapidly as circumstances permit.

We are able to arrange the complaints in four groups:

1. Improvements already completed before proposed by the delegates, such as providing proper supports for the air lift drum in the leaching room, guards for all gears, safety devices and rules for the rolling mill, and hoods for the acid tanks in the leaching house, and facilities for testing for poisonous gases given off from the tanks.

2. Small matters of safety and efficiency being caught up in routine work, such as inspection of electric hoist in the casting room and of chain blocks in the zinc tank room; repair of track switches and tracks to the zinc house; adequate lighting of dark tunnels and passageways; stoppage of leaks of fumes from the bag house; providing switches for unprotected trolley wire to the roasted zinc concentrate bins.

3. Desirable improvements, not of a vital nature, expensive to install and maintain; matters of completeness and elegance, such as increased ventilation of casting rooms and the zinc tank room; providing steel or non-corrodible window frames in the zinc tank room, and installation of electric furnace for zinc pot in the zinc dust plant.

4. Control of chemical engineering operations which at the present time are of experimental or pioneer nature.

Regarding items of the first group the management has evidently anticipated and wholly forestalled adverse criticism. The air lift drum in the leaching room had been removed. Guards are provided for all gears, although at times the guards have been carelessly left off. Safety devices and rules have been established for the rolling mill. In the leaching house, where the fatal poisoning accidents occurred last November, hoods are provided for all the acid tanks, the fumes are taken off by an exhaust fan, and the gases are being continually tested for arsene and other poisonous gases.

Matters falling under the second group are most numerous, and to a large extent not wholly open to adverse criticism, although negligence through familiarity has not always been sternly repressed. A great metallurgical plant, especially one undertaking new, pioneer, and even revolutionary production of a chemical engineering nature—a plant in which changes and alterations are right in progress—can hardly be expected to be found in a perfected and finished condition of construction and operation. We find both the

delegates and the management in accord and harmoniously working to perfect all details tending toward safety, welfare, and efficiency. We find nearly all criticisms relate to the new zinc leaching and electrolyzing department, while not a single one concerns the more standardized and longer operating electrolytic copper department. In view of the remarkable technical and engineering feat in constructing and operating the new zinc department with success, considerable allowance must be made; and we have no doubt but that this department will also shortly become outside the possibility of adverse criticism.

The items of the third group have for some time been before the attention of the management and will be remedied in due season. Under the recent and present trying industrial conditions, partly resulting from a strike of the boilermakers, the completion of several such items could hardly be pressed. The delegates did not mention any condition not already considered. For good reasons, such as the strike just mentioned, various installations are incomplete or not yet attempted.

Under the fourth group, relating to the control of certain dangerous operations, and conspicuous by the two accidents resulting in several fatalities, it does not appear that any employee had ever even known of the danger or brought it to the attention of the management. Conversely, the staff engineers had been cognizant of possible danger and were operating under what they thought safe conditions. As far as we were able to learn the accidents happened from a combination of unexpected events which, relying on their experiments and experiences up to that time, the operators were unable to foresee and guard against. Elaborate and comprehensive precautions have now been taken and the management appears to be in a position to preclude a repetition of these or similar misfortunes.

The safety precautions in the leaching plant have been already described. In the zinc dust plant, where the explosion of April 26 took place, the oil burners heating the zinc pot are to be replaced by an electric furnace; a brick housing has been installed over the zinc dust bags, completely eliminating the escape of zinc dust from them; the housing in the zinc pit and elevator has been removed and a new

type of elevator, eliminating the necessity of men working in the zinc pit, is being installed; and all men are forbidden to go into the zinc pit while smoking or while the zinc blower is in operation.

We find the management anxious to comply with all the suggestions of the delegates, and apparently doing everything possible for the safety, welfare, and health of their employees, especially through its Safety Department, which considers carefully all suggestions made to it, and heretofore has acted favorably on all the important and feasible suggestions.

Respectfully submitted,
MONTANA STATE BUREAU OF MINES
AND METALLURGY.
C. H. CLAPP, Director.
H. B. PULSIFER, Metallurgist.

The findings of the Board were in accordance with the conclusions reached by the learned members of the staff of the Montana State School of Mines, and gave complete satisfaction to the grievance committee of the Mill and Smeltermen's Union, as well as to the employing company.

LUMP SUM SETTLEMENTS.

Compensation laws are written in terms of disability, meaning that incapacity caused by accidental injury is entitled to compensation to the extent, under the Montana law, of fifty per cent of the wages, governed by a maximum weekly payment of twelve dollars and fifty cents. In cases where the injury results in death or permanent total disability or in a specific loss, such as an arm, leg or eye, the time during which compensation shall be paid is fixed. In all other cases involving injury of a temporary nature the time allowance during which compensation shall be paid is controlled by the actual time lost on account of the injury within the maximum limitations of the Act.

To meet necessary contingencies the law is flexible to the extent of providing means by which a cash lump sum of money, either in whole or in part, may be advanced against the compensation account, which is designated as a "lump

sum settlement," and its determination is vested in the discretion of the Board. This feature of the law was amended by the Legislature of 1919 by clothing the Board with broader powers in the matter of ordering cash lump sum settlements.

Vesting the Board with such discretion has made it the object of much importunity by claimants seeking permission to convert monthly payments into cash, while on the other hand insurers under Plan Two of the Act and employers under Plan One, with but few exceptions, prefer the monthly payment method. There is no criticism due employers in this matter, and likewise claimants cannot be blamed for wanting whatever compensation may be coming to them commuted into a cash lump sum, even though it be subject to a discount.

In considering petitions for commutation the interests of the claimant, both as to the present and future, are carefully weighed. His life habits, as well as business ability to invest and properly conserve money, are closely scrutinized. The necessity for the conversion must be urgent and impelling. It must conclusively appear that the money will be used as far as it will go to bridge over the calamity that has overtaken the victim of the accident.

In cases where the workman has lost a limb or an eye and the impairment suffered will not constitute a permanent total disability, the petition is generally given favorable consideration. Experience has proved that the advancement of compensation in a lump sum will in the majority of cases enable the recipient to satisfactorily adjust his life along some new channel. With this money he can possibly engage in a small business or prepare himself for a new vocation. Therefore his request for permission to convert the monthly payments coming to him into a cash lump sum does not offer many complications. However, he must have a definite and feasible proposition in view for the investment of his expected money, and his habits must be such that his plans are likely to succeed.

Where the petitioner consists of the dependent parents of the deceased, the question presents ordinarily considerable difficulty. It is only in rare cases that the proof submitted establishes the fact that the parents have been wholly de-

pendent upon their deceased son. While partial dependency calls for the same treatment as total dependency as to the length of time during which compensation runs, yet partial dependency is fully relieved by monthly payments, and requests for lump sum payments in such cases rarely develop sufficient merit to justify favorable action.

When the petitioner is a widow who has lost her breadwinner, the conditions are much different. It may be possible that there is a home partially paid for, or children to educate, in which case monthly payments limited to fifty dollars scarcely serve to meet the expense under present day conditions, and while time eventually exhausts the payments, unfortunately it does not improve the condition. Therefore when a widow surrounded by such conditions is the petitioner and the Board's investigations disclose that she possesses what can be termed an adaptability toward her changed circumstances and shows an ability to successfully handle money in a considerable amount, the Board is ordinarily disposed to grant her request.

In dependency cases where there are no small children, and there is a strong likelihood of the widow remarrying, an entirely different angle is presented, and the petitions for conversion are usually granted. As the law provides that the remarriage of widows forfeits all compensation rights, it does not seem fair that her natural privilege to remarry should be thus handicapped. The Board, when reasonable opportunity affords, feels justified in settling the matter by authorizing a lump sum settlement, thus removing her remarriage handicap.

In view of the fact that the employer and insurer are relieved from future compensation payments in case the widow remarries it must be remembered that the employer is entitled to his equity in the "gamble" placed in the Act by the Legislature, and is justified in opposing lump sum settlements to widows likely to remarry. Monthly compensation payments are ordinarily a restraint against hasty and unprofitable remarriage, and unless the promised benefits greatly exceed the present certainties, the employer prefers to continue with the monthly payments. However, the Board has not given the same consideration to the employer's financial interests that it has to the future welfare of the unfor-

fortunate widow. Consequently neither the probability or likelihood of a widow remarrying has deterred the Board from granting her petition for a cash lump sum settlement, but rather the contrary has been the rule.

Many of the compensation states deny the claimant the privilege of commuting monthly compensation payments into lump sums because society is entitled to protection against the possibility of compensation beneficiaries becoming mendicants or charges upon it. The reason prompting such legislative action is just, for one of the cardinal virtues claimed for compensation is that it eliminates the "poor farm" as far as the victims of industrial accidents are concerned.

The payment of compensation in monthly installments constitutes a positive assurance against almsgiving during the compensation period, yet against this advantage to society is the sad and potent fact that in refusing lump sum settlements the unfortunate is thus denied whatever possible chance might exist whereby through the investment of the lump sum in a business enterprise of some kind he might be guaranteed a livelihood for the remainder of his crippled days.

It does not seem quite fair to arbitrarily limit the unfortunate individual's future expectancy by refusing commutation, thus narrowing his life's horizon to a fixed stipend of so much per week for a certain number of months. By such action their prospective is forever limited to the limit fixed, for by no stretch of the imagination can they ever hope to be more than a pensioner, dependent entirely upon the money received from the monthly compensation payments; all ambition and incentive destroyed—just a parasitic wreck waiting for the end of life's gamble.

As compared to this these unfortunates should be allowed one more opportunity for the future—just one more attempt to accomplish something for themselves with the capital received from the lump sum settlement. Such a chance surely serves to give life a different aspect for them. They will have a broader view of the future than they have ever dreamed was possible. Perhaps for the first time they will realize that humanity really means something beyond the bare right to live, breathe and exist. Consider the prop-

osition from any angle—even at the best, or call it the worst—under the monthly payment dependency is but postponed for a few years.

In death cases the widows, orphans, beneficiaries and dependents receive compensation for a period of four hundred weeks, following which they are left upon their own resources and the uncertain help of friends or the charity of the world. It is impossible for them to save anything on twelve dollars and fifty cents a week. Therefore measured from the very worst possible eventuality, which would mean investing unwisely the lump sum of approximately \$4,200.00 and losing it all, he would only be anticipating by a few years what must inevitably take place when his compensation period is ended. Hence it is quite evident that society is not risking much in allowing these unfortunates to have one more chance at "life's game," with enough money to make a final "ante" and play it "to win."

The Board's experience during the past four years justifies the belief that the provision of the law authorizing the conversion of monthly compensation payments into a cash lump sum settlement is one of the wisest features of the Act. The members of the Sixteenth Legislative Assembly evidently entertained that belief, as evidenced by their action in broadening the authority granted the Board by the law.

During the past four years in death cases, based on the petitions of beneficiaries and dependents, there have been 214 conversions of monthly compensation payments into cash lump sums. In addition to these death cases 544 commutations have been permitted in cases of specific injuries. The Board has kept a careful record of each one of these commutated cases and in every instance but one the recipient invested the money judiciously, with the result that in the majority of cases they are now receiving a larger income per month from the investment than they would have received from the payments provided by the Act, which it must be remembered have a maximum limitation of not to exceed one hundred months.

Nevertheless there are two sides to the question, and all petitions for permission to convert monthly compensation payments into cash lump sum settlements are carefully considered and thoroughly investigated to guard against the

mistake of permitting a person of poor judgment or shiftless habits to receive compensation money in a lump sum. The petitioners are required to submit convincing proof as to their business ability, good habits and frugality; also as to the soundness of their business opportunity before favorable consideration is given to their request.

The detail of how the 122 fatal accidents happening under each one of the three plans for the past twelve months have been disposed of is best illustrated by the following table:

Plan	Fatal	Claims Filed	Re- jected	No. Claims	Pend- ing	Monthly Pay- ments	Lump Sums
1	92	60	4	32	15	6	39
2	8	5	2	3	1	3	1
3	22	14	1	8	1	10	3
Total	122	79	7	43	17	19	43

The total of 688 fatal accidents occurring during the entire four year period under each one of the three plans have been adjusted and disposed of as follows:

Plan	Fatal	Claims Filed	Re- jected	No. Claims	Pend- ing	Monthly Pay- ments	Lump Sums
1	536	285	9	250	53	32	191
2	93	56	4	38	19	21	12
3	59	31	2	28	7	11	11
Total	688	372	15	316	79	64	214

The disposition of the 626 specific disability injury cases for the four year period was as follows:

Plan	Permanent Total Dis- ability	Permanent Partial Dis- ability	Claims Filed	Claims Pending	Monthly Pay- ments	Lump Sum Settle- ments
1	12	364	376	22	29	325
2	5	153	158	4	10	144
3	0	92	92	1	16	75
Total	17	609	626	27	55	544

ALIEN AND ILLITERATE WORKMEN.

The Sixteenth Legislative Assembly in its wisdom passed House Bill No. 330, which received executive approval on March 6th last, providing in part as follows:

"It shall hereafter be the duty of every person, association or corporation, employing more than fifty persons at one time, within the State of Montana, to make out and file with the Industrial Accident Board a regular quarterly report showing the names, ages and residence of all their employees who are not citizens of the United States, and also of all employees who do not read and speak the English language. All such reports shall be made upon printed blank forms to be furnished by the Industrial Accident Board, and shall in addition to the foregoing facts disclose the following, to-wit:

(1) The country of which said employee is a citizen.

(2) The period of time which said employee has resided in the United States.

(3) The period of time which said employee has been in the service of said employer.

(4) Whether said employee be married or single, and if married, the residence of employee's wife and family.

(5) What steps, if any, employee has taken to become a citizen of the United States.

(6) What steps, if any, employee has taken to familiarize himself with the English language.

(7) Such further and additional facts and information as shall be prescribed and required by said Board."

The Act provides that all employers of labor in the State are authorized representatives of the Industrial Accident Board for the purpose of securing the information necessary to make the required report, and further provides that any employer or employee refusing to comply with the provisions of the Act, or with any rule or regulation of the Board relating thereto, shall be deemed guilty of a misdemeanor.

In compliance with the provisions of the new law the Board prepared blank forms which were mailed to all the employers of the State, requesting the first report to be filed for the quarter ending June 30, 1919. Approximately one-half of the employers have been heard from to date with these reports, and the seventy-one so reporting show that for

the quarter ending June 30, 1919, there were 4,337 alien and illiterate workmen in their employ. As only employers working fifty or more men are required to report, it would be fair to assume from the data compiled that the alien and illiterate workmen in the State number at least ten thousand.

The Board has already taken vigorous steps to improve the condition disclosed by these reports by taking the matter up with the proper federal authorities in the hope that something may be done looking toward the education of these illiterates. It is also attempting to bring to the realization of the aliens either the desirability of their becoming citizens of the country where they are making a good living, or the necessity of their returning to their own country. In this connection it is doubtful if it would be wise to induce the major portion of the aliens that have been reported to become citizens, as they are mostly of the Slavonic races, principally Finns, Montenegrins, Servians, Czechoslovaks, Turks and Greeks. Therefore it is quite doubtful if our standard of citizenship would be improved very much by naturalizing these people.

Of the estimated 10,000 aliens and illiterates, an analysis of the reports indicates that of the number 8,000 are illiterates, and while this seems a high percentage for Montana, yet Secretary of Interior Lane reports that there are something over five million in the entire country, which would indicate that Montana's percentage as compared to other states on the basis of population is very low.

THE PROBLEM OF THE CRIPPLED WORKMEN.

The world war, with its historic "trench," has destroyed what little of caste existed in this country, and has made a common level, where for many years to come all can meet upon a basis of equality. It has created an age of mutual help. For the first time since the dawn of our modern industrial era we find unfortunate individuals being raised to the shoulders of those who have been more fortunate to the end that they may participate, at least to some extent, in whatever labor is doing. This has resulted in rekindling in the heart of the handicapped workman the dormant fires of

ambition which the fuel of co-operation will eventually build into a bonfire of success.

It is acknowledged that the chief benefit obtained from Workmen's Compensation Legislation rests in the satisfied, contented feeling of the employee, which makes him competent and brave in the knowledge that he will be cared for in case of accident. The crippled workman physically handicapped through industrial accident is confronted with the same problem; his morale must needs be improved.

It must be conceded that there exists somewhere in some place a niche which a man having a partial disability can fill with just as much efficiency as though he were not in any way handicapped. If this is so, then that place should be found for the handicapped workman to the end that he may be contented and thus able to satisfy his employer and become what is every man's ambition, an economic asset to himself, to his family, to his friends and to the commonwealth.

For the second time Congress has been called upon to pass the bill providing for the vocational rehabilitation of workmen crippled through industrial accidents, and to provide for their return to some suitable occupation. The measure proposes converting the hospitals and facilities which have been developed to re-educate and re-train military cripples for active life into a medium or means for the re-educating of the victims of industrial accidents, qualifying them for a continued self-sustaining occupation within the reach of their physical capabilities.

The measure authorizes the federal board for vocational re-education to assist the different states in the rehabilitation vocationally of their crippled industrial workers, and provides funds to do the work on an equal basis with the state.

There is urgent need for the passage of this bill. It is estimated at the present time that there are over 100,000 handicapped or crippled workers in the United States that can be saved through the medium of vocational rehabilitation, and further this number is being increased at the rate of at least 1,000 per month.

Hon. John Mitchell, former head of the National Association of the United Mine Workers of America, and now Chairman of the New York Industrial Commission, says:

"In my experience I am brought face to face every day with the tragic consequences of our failure to make some provision for restoring to economic usefulness, self-assurance and renewed interest in living those victims of industry whose injuries have maimed or disabled them beyond all possibility of returning to their usual occupations. For a time workmen's compensation comes to the aid of the family, then those benefits are exhausted. The little savings of years are swallowed up. The unfortunate man is entirely cut off in the prime of manly vigor from the work he knows so well how to do. He sees no occupation open to him * * * His special knowledge of working processes gone to waste, he sinks under the weight of his misfortune * * * watching the black shadow of destitution fall over his home."

Workmen's Compensation Laws and their attendant safety first propaganda have accomplished wonders in preventing accidents, but despite every precaution a certain number of crippling accidents will continue to occur.

While we were in the midst of war, we readily appreciated the fact that strong virile mankind was being constantly converted into tortured crippled beings. However, we failed to fully realize that at the same time our mines, mills, factories and railways were busy mutilating limbs, blinding eyes and permanently crippling industrial soldiers at the rate of a thousand a month. A wooden leg is just as wooden when covered by overalls as when protected by khaki. It is just as necessary to care for the one as for the other, and while the crippled soldier and sailor properly comes first, his needs in the matter of vocational rehabilitation have now been cared for, which means that the door must not be closed upon the industrial cripple. Unfortunately he is not the recipient of the strong supporting arm of a paternalistic patriotism, prompted by public sentiment and catered to by an almost maternalistic government.

Heretofore the question of what is to be done with the crippled has to a great extent been associated with the question of what is to be done with the pauper, and this question has at all times been considered one which should prop-

erly be answered by the State. Hence it is only reasonable that the determination of what we are to do with our crippled workmen should be solved by the State.

The number of workmen crippled in industry who require vocational rehabilitation is much greater than the majority imagine. Industry has exacted a fearful toll each year, as there are upwards of two million industrial accidents occurring each twelve months, resulting in a loss of upwards of thirty days to more than 700,000 victims of accidents. The fatal accidents in the course of a year aggregate 25,000, and a conservative estimate of the number permanently crippled each year is in excess of 12,000. The average age of those industrially handicapped through accident is under thirty-five years, leaving a life expectancy of thirty-one years. This indicates that at the present time there are at least 100,000 victims of accidental injury in the United States who imperatively need vocational rehabilitation in order to make them self-supporting, satisfied, independent civic units instead of parasitic liabilities, as they are at present.

The time loss of these handicapped 100,000 is almost beyond reasonable computation. Young able-bodied workmen are losing eyes, feet, toes, fingers and legs by the thousand every year, with the result that these functional losses disqualify the major portion of them from following their usual occupation. Their assistance presents both a great opportunity and a tremendous human appeal for vocational rehabilitation.

Unquestionably every one approves of the wisdom of the federal government in providing for the rehabilitation or re-education of the victims of the trench, the poison gas and the submarine, and surely the same reasoning should apply to the victim of the mine, the mill and the factory. The same thought, the same logic and the same humanitarian purpose must apply in each case. The workman who remained at home on the job doing service in industrial war work, thereby suffering a crippling accident, is just as big a hero and patriot as the man who left his "job" at his country's command and received his crippling handicap in going "over the top." The patriotism of the workman found expression in his devotion to the duty of labor, while the patriotism of the soldier found expression in giving battle for the defense of his country.

It is fortunate that under the stress of the times it will be possible for the industrially crippled to participate to some degree in the public favor, which will bring the crippled soldier into a proper and just recognition of past services and future obligations.

Scientific authorities advise that orthopedic treatment contemplates providing something for the patient to do as soon as he has even strength enough to sit up in bed. As therapy means the treatment for any kind of disease, psychotherapy means treatment for disease through the medium of the mind; mechanical therapy, treatment of disease through appliances of a mechanical nature in the shape of exercises of a proper kind; hence, with the same line of reasoning, orthopedic treatment can be considered occupational therapy, meaning treatment for deformed or crippled persons.

The line of procedure following orthopedic treatment, through occupational therapy, would consist of rehabilitation of a re-educational nature, through especially designed forces in polytechnical training schools, adopted with the object in view of equipping the crippled person along some line of endeavor which would make it possible for him to earn something in the nature of a living. Under such an arrangement there would be no such thing as any permanently totally disabled cripples, because every one, no matter how severely injured, would eventually learn how to do something.

Those having in charge the vocational rehabilitation scheme of the government advise that the record in France discloses that the crippled and maimed soldiers who took occupational therapy in connection with or in the course of their hospital treatment, flowed out naturally and regularly into appropriate industrial channels, and that not to exceed one out of every twenty wounded men declined industrial re-education.

If the plan advanced by the federal government to educate, through the medium of occupational therapy, crippled soldiers is good, then there can be no question as to the wisdom of the state doing likewise with its industrial cripples. It is only fair that the state should bear the expense of restoring these cripples, because it enjoys the benefits resulting from the return of these unfortunate victims of accidents to the channels of production.

The question of what shall be done with the cripples should certainly be considered from the same angle or viewpoint as other hospital cases provided for by the state. We have public hospitals supported by the commonwealth for the care of unfortunates suffering from sickness, and it is not much of a step to pass on and provide hospital facilities for the re-education and rehabilitation of the unfortunate victims of industrial life. The state cares for the individual stricken with sickness until such time as he is able to resume his place in the producing citizenry of the commonwealth, and certainly an equal reason exists justifying the state in caring for the citizens industrially crippled until such time as he can return to the producing field.

This rehabilitation treatment or re-education must of necessity be through the medium of short courses especially designed or adapted to individual needs, which in turn should be supplemented by real work in the form of advanced apprenticeship in shops and plants. Of necessity the range of subjects treated or taught must needs cover practically the entire field of human activity. However, skilled men qualified along certain lines should where possible be taught to follow former occupations. It is, of course, evident that it would be difficult to re-educate a hod carrier who had lost his legs along the line of his former activity. It would be better to take the legless man and educate him for a shoemaker, tailor, telegraph or telephone operator, or for some line of endeavor calling for the excessive use of arms and hands with but little use for legs. The reverse is equally true in that the telegraph operator who has sustained crippled hands or arms should be taught the work of the mail carrier, the track walker, the road inspector, or any line of work calling for plenty of walking with little work for the hands.

In determining what the regenerated, re-educated workman can or should do it will, as a natural precaution, be wise to use unceasing effort to develop his intellectual faculties or power. There is an old saying to the effect that it has been necessary for many a man to lose a leg or an arm that he might find out he had a head.

The period of industrial reconstruction following the war will sooner or later cause a complete return to normal trade

conditions, when every workman must stand the acid test of efficiency, which means that if the crippled worker is in an unsuited place, he will be compelled to give way to the workman who is more proficient. Hence the absolute necessity for the re-education of a crippled workman to the point where he can do the work that he is physically adapted to do as well as the workman in possession of all his faculties. That this is possible has been proved beyond the point of discussion.

The education of the handicapped workman will dispel the fear entertained by some employers that the danger of handicapped persons again suffering injury is greater than with normal people. The safety record established by the cripples who have been re-educated indicates that there is not much danger of their being injured a second time, because in addition to being more careful their experience has developed a caution that is almost uncanny in its effectiveness. In addition to this the re-educated workman makes an exceptionally good employee, as he is stable and efficient and not as apt to be restless as the normal workman. In the process of overcoming his physical handicap he ordinarily develops unusual mental ability, and is, therefore, decidedly more efficient than the normal workman.

When the cripples, through the process of vocational re-education, are again qualified to enter the field of industry, there will be no difficulty as to their absorption by the industries, and it is to the interest of all the people of the state that the doors of opportunity for self-support be opened to these unfortunate handicapped workmen, who will then be efficient, independent, productive factors of the commonwealth.

The government is busily engaged in the installation of several of these wonderful redemption institutions, devoted to the restoration of crippled soldiers and sailors, which in the final analysis means really furnishing work of an adaptable nature. This is not a new theory, as work has long been recognized to be the best curative agent in the treatment of many ailments. However, the ending of the mighty world conflict gives the matter of the rehabilitation of the crippled such an importance that it attracts the best thought of scientific men to discover the best form of cure

which has finally been decided to be work of many and varying kinds.

The establishment of vocational rehabilitation institutes by the government, designed expressly for the re-education of its own war wounded and shell torn veterans, must of necessity run its course and serve its purpose within the next year, or at most two years. The rehabilitation work caused by war's aftermath must end when the last war cripple has been re-educated and restored to the field of mental or physical productivity; but when this is done, there will still exist and remain with us those industrially injured, deserving and calling for the same amelioration afforded the crippled from the battlefields.

As far as the result or effect on the productivity and work of the country is concerned, it is just as important that the unfortunate victim of industrial accident should be restored to the producing line as it is that the man crippled in the service of his country should be restored to the field of physical productivity. If unassisted both go to make up the human scrap heap, with its inevitable contribution to liability. There exists no line of demarcation between the two sufficient to be distinguishable to those whose efforts in the direction of human reclamation are prompted by a desire to benefit the handicapped individual and to relieve society of the cost of non-producing members.

As long as the object sought is to furnish heart and courage to the unfortunate and provide him with a proper equipment and opportunity for pursuing a useful occupation, it is immaterial whether the individual beneficiary was handicapped through participation in the terrors of war or in the rigors of industrial strife. Whether a soldier of war or a soldier of industry, if crippled, humanity demands that society as collectively organized should do its utmost to restore him to the channels of human commerce, equipped to earn the livelihood of which accident deprived him.

In the work of human reconstruction or restoration it must be self-evident that every man who has been rendered unfit for physical work through accidental misfortune possesses possibilities requiring only development. The fact that prior to the industrial accident which disqualified him from further industrial endeavor he was a productive factor of

society means that despite the wreck there is something left to build on, and this man by re-education can be restored to some place in the field of endeavor.

Unfortunately heretofore no successful plan has ever been worked out providing for the rehabilitation of the victims of industry. Occasionally private agencies have undertaken the problem, but as might reasonably be expected, due to their limited efforts, the weight of the undertaking has been so great that the attempt has broken down under it.

It is almost a crime that disabled workmen are as a usual thing left to shift for themselves and become an unwelcome burden upon friends, who in the majority of instances are possessed of but limited means. It is a long hard road from the hospital ward with its bandaged stumps to self-supporting work in the world of endeavor, and it is a crying shame that through all the ages crippled workmen have been left to stumble their way along life's broken path as best they could, with no hand outstretched to them other than that of spasmodic pity.

The world's accident record discloses that the unfortunate victims of industrial accidents seldom rise above their misfortune through their own courage or initiative. The great majority are unable to secure remunerative employment on account of their handicapped condition, and as a natural consequence become discouraged and finally drop back as a burden upon relatives or society. Many of these unwitting victims deteriorate in character until they use their weakened condition or distorted limbs as capital in seeking alms. Thousands and thousands of them become paupers and ply their trade as ordinary mendicants by the roadside. No matter where you go you find the legless, sightless, armless cripple, soliciting gratuities at every available spot.

Such a deplorable unfortunate condition should be and must be changed. It is the judgment of those who have studied the situation that there is in fact no reasonable excuse for its existence. Vocational rehabilitation will entirely correct this condition. There is hardly a case in which, if the victim of industry has been properly assisted at the time of the accident, he would not have been restored to civil employment through the medium of rehabilitation. In the absence of assistance or support of this kind one discourage-

ment after another follows the unfortunate until he sinks to the depths which offer only the alternative of the beggar's calling or the poorhouse or the grave of the suicide.

Unquestionably the vital humane necessity calling for this movement must be apparent to all who have given it but a moment's thought. The voice of thousands of perishing cripples, calling from out the wilderness of despair, must find an echo in the hearts of humanity whose members are the blessed or fortunate possessors of whole limbs and un-maimed bodies.

Workmen's Compensation Laws have rendered a wonderful service, but exclusive of the disability compensation paid on account of accidental injury, they have served to intensify the handicap suffered by the crippled workman. Cripples experienced much difficulty in securing employment before the enactment of compensation laws, but since the difficulty has been increased manyfold. A great many employers endeavor to find places for their own workmen who have been injured in their service, but it is seldom that an employer is found who will take on workmen who have been crippled in the employ of others.

No employer is searching the labor markets for handicapped workmen. All employers seek only normal employees who are attractive and promising as far as their physical capabilities are concerned. The fact that cripples are entitled to a chance to work if they can render reasonably satisfactory service does not receive the consideration it should from the average employer.

Vocational rehabilitation by scientifically qualifying handicapped workmen to do certain work just as well as a normal workman can do it will serve to satisfy the employer that he is taking no undue chance or risk in giving a workman thus equipped a position. He will realize that on account of the re-education this man has received he is able to protect himself against further accidental injury, even better than the man who has not had the experience, and that as a consequence the cost of compensation benefits will be no greater for the scientifically re-educated workman in his employ than if physically normal workmen only were employed.

Viewed from every angle the work of vocational rehabilitation, consisting of constructive re-education, means more than the average individual comprehends at first thought. Just for a moment imagine what it means to this country to restore one thousand helpless, hopeless, discouraged cripples each month to the active channels of happy productivity. The record discloses that industry's accidental toll last year cost at least one month's loss of time and earning power to each one of over three-quarters of a million workers, and the number sustaining injuries permanently handicapping or crippling them forever was over 12,000.

Even considered apart from the humane features involved, it seems impossible to conceive of an investment that will pay better returns than for the State of Montana to provide for a vocational rehabilitation institution to care for and restore the cripples of industrial life to the fields of trade and activity. The money that would be thus invested would serve to change what is now a permanent liability into an active producing asset. Aside from the humanitarian principles concerned it is a business proposition of high economic order, because it is an investment that will pay many-fold.

During the past four years, or since a detailed record of such accidents has been kept under the provisions of the Workmen's Compensation Law, the total number of industrial accidents in this State has been 26,421, of which 688 were fatal and 609 permanently crippled. Even of this limited number, which is being proportionately added to every day and every month and every year, it is certainly worth the time and the resources of this great State to take the initiative in this wonderful rehabilitation movement and install the first vocational rehabilitation institution of the country adapted to the re-education and restoration of the victims of industrial accidents to a place beside their producing brothers or neighbors.

Of the 609 permanently crippled in this State during the past forty-eight months, less than one-fourth are doing anything toward making a living. The others are subsisting on their monthly compensation, which in no instance extends beyond six years, then—God only knows!

Suppose that instead of permitting these unfortunate, unwitting human derelicts, who have committed no wrong, to suffer and fall back on the community as an unproductive cost item, representing an economic loss of fifty cents a day for food alone, or \$100,000.00 a year, the State expended one-half that amount, which would be ample to rehabilitate them vocationally, to change their status. It would mean not only a saving of the food loss now going to these unproductive cripples but in addition there would be the gain represented by their earning capacity after rehabilitation and restoration to the ranks of active producers.

It is safe to estimate that these 609 non-producing cripples, now costing the people of the State not less than \$100.00 per year each, could be and should be not only self-supporting but able to earn at least \$1.00 a day each. This would mean adding to produced wealth at least \$300.00 a year each, or a gain of \$180,000.00, which added to the saving of \$100,000.00, would indicate a net gain of \$280,000.00 per year. This saving could readily be realized on an investment of less than one-fifth of that amount. Therefore from a business standpoint the proposition is hardly a subject for discussion. The humane features are unquestioned, hence it would seem as though the proposition should receive practically unanimous endorsement.

In the event that the taxpayers of the State should have any hesitancy in making the necessary appropriation for this purpose, the industrial employers of the State could well afford to make the necessary contribution through the medium of a fund created for that purpose, derived from a certain amount levied in each case of fatal injury where there were no beneficiaries or dependents.

Since the Compensation Law was enacted four years ago there have been 688 fatal accidents, of which 316 were without beneficiaries or dependents and no claim for compensation was filed. If in these cases the employer instead of paying from \$4,000.00 to \$5,000.00, as in case of dependency, paid \$500.00 into the rehabilitation fund, it would more than cover every necessity. Five hundred dollars paid by the employer in death cases where no beneficiary existed would serve to prevent discrimination on the part of the operator in favor of unmarried men, or those without dependents, and

would justify legislative action requiring such a payment, as has been done by the Legislature of the State of New York, except that in the Empire State the fund so contributed is used to compensate workmen sustaining a second injury under a different employer, resulting in total disability, such as a one-armed, one-eyed, one-legged man later suffering the loss of the remaining member, in which case the employer in whose service the second injury occurred should not be required to pay for more than the accident that happened in his employ. In Montana the proposed fund could be used for that purpose, as well as making possible the creation of the desired vocational rehabilitation school.

Since the Board commenced the agitation of this matter something over a year ago all of the prominent employers of the State have unhesitatingly given it their hearty approval, and the reception that has been accorded the proposed movement by the cripples of the State has been both pathetic and inspiring. Letters have been received from hundreds of the State's handicapped, and many of them have visited the Board in person to urge the realization of the undertaking. They represented all stages and conditions of handicapped workmen, as they entered the office of the Board hobbling on crutches and leaning on canes. Some "pegged" in on homemade wooden legs and others on artificial limbs of perfect adjustment. Many entered with sightless eyes, guided by relatives and friends, followed by those with armless bodies, withered limbs, crooked legs, paralyzed vocal organs, soundless ears, toeless feet and fingerless hands, but with faces aglow with the newborn hope prompted by the expectation that they would be afforded an opportunity for reconstruction that would make it possible for them to again secure the recognition of the world alongside of those still possessing normal physical qualifications.

The accident records of the Board discloses that during the past year approximately three hundred workmen were crippled through injuries received in the course of their occupation. To this number add a like number to cover the results of accidents occurring to employees of common carriers and those arising from other causes, and we have 600 newly crippled, removed from the field of industry as vocationally handicapped. Suppose that each of these cripples

lives ten years after the accident, it will mean that there are six thousand individuals constantly writhing under their vocational handicap. Suppose that instead of permitting this aggregation of unfortunate individuals to drift aimlessly and unproductively they should be directed through vocational re-education into the proper channels of effort. What an enormous quantity of productive energy would be thus utilized.

The fact that a workman has suffered some physical disability is no justification for his being forced to step out of the ranks of industry. There must be some place where he can function with efficiency, provided that place is searched for and found by those qualified to do so. A tailor does not work with his feet, neither does a bookkeeper, consequently if they should lose one or both of their legs, they could do other work as well as if they retained all their members.

In the ranks of the industrial army, battling in life's struggle, there is somewhere a vacancy for every individual; some place that he can fill even with a crippled or disabled body; if not in the line of work for which he has been formerly educated, then all that is necessary is to re-educate or train him along some other line of endeavor that he is physically or mentally fitted to fill.

There is a wonderful contentment as well as happiness for the workman who is doing his part in life's undertaking and working at the task that he enjoys. The happy contented workman, doing the thing that he is able to do thoroughly and well, whether physically handicapped or not, is an enthusiast and satisfied with his work whether it be sweeping the floor of the office or managing the business.

The field for the work is practically without limit. An opportunity is all that the crippled needs—just a chance to work, preceded by an education that will qualify him despite his crippled condition to do the work that is given to him to do as well as the normal physical worker at his side. Oft-times an accident, causing the loss of an eye, a hand or an arm has served to awaken the afflicted to a real conception of life and its opportunities. The injury brought a sudden halt in the pace that was being traveled, with a forced op-

portunity to look over the field and choose deliberately the future road to follow.

Take the case of Judge Quintin Corley, a highly respected jurist of Dallas, Texas, who reared a large family and made a place for himself in the world after losing both his arms. His determination was all that overcame his crippled condition. He refused to beg and by persistence secured his first job of supervising a gang of unskilled laborers. He refused, despite his many days of privation and want, to accept a cent of charity. His determination to live down his handicap has proved amazingly successful. With the aid of mechanical appliances invented by himself he performs all the normal functions of life without apparent difficulty. The remarkable career of this armless judge establishes most emphatically the fact that even though a man be seriously handicapped, he is by no means useless.

Another notable illustration is that of Michael J. Downey, who through exposure to a blizzard lost both his legs and one arm, and the major portion of the remaining hand. He was sent to the poorhouse, but by dint of much pleading induced the authorities to give him a year's education. His advancement was phenomenal. He later became speaker of the House of Representatives of the State of Minnesota, and is now president of a bank in his home town. Like Judge Corley, he is able to care for his own physical needs through the medium of his artificial members.

Massachusetts is the first state to attempt something definite along the line of vocational rehabilitation, but as yet it has made no attempt to establish a special school, devoted to the purpose of re-education. Wisconsin is also taking active steps to find suitable positions for the handicapped workmen of that State. Montana is slowly and carefully feeling its way to the point of establishing the first institution in the country devoted exclusively to the rehabilitation educationally and mechanically of industrial cripples.

During the last regular session of the Sixteenth Legislative Assembly, on motion of Senator Donlan, a joint memorial was adopted, petitioning the Congress of the United States to transfer to the State the Fort Harrison Military Reservation to be used for a "rehabilitation institute for the education and maintenance of persons injured in the indus-

tries of Montana." United States Senator T. J. Walsh introduced a bill providing for the ceding of this military post to the State for the purpose mentioned, and there is little doubt that this measure, which is receiving the active, energetic support of Montana's entire congressional delegation, will soon pass.

Apparently the only thing now in the way is the fact that the war department is seriously considering using the reservation for a soldiers' and sailors' rehabilitation hospital. If this is done arrangements will be made for the plant to pass to the use of the State for its industrial cripples after the government has finished with the work of re-educating the handicapped soldiers and sailors. Hence there is little doubt that the ambition of the handicapped in Montana will soon be gratified by the establishment of an institution that will give to all the cripples of Montana and adjoining states an opportunity for reconstruction along the line of an education that will qualify them to again enter the active lists of the world's producers.

In the event that the federal government, which now seems likely, decides to locate one of its proposed vocational rehabilitation institutes at Fort Harrison to serve the north-western country in caring for the crippled soldiers and sailors belonging in this section of the country, it will be done with the understanding that the State is to co-operate with the federal authorities to the extent of having its industrial cripples educated; and with the abandonment of the plant later by the government upon the completion of its work, which cannot extend beyond the next two years, the State can take over the proposition for use for all time, because unfortunately the commonwealth will always have the industrial cripple to re-educate. He is being made every day of every week of every month of every year.

The State and the people owe something to the unfortunate victims of industry, and the commonwealth should not allow them to struggle helplessly for themselves or depend upon the sympathy of their employers or the grudging help of friends or the charity of the public. The State cares for its indigent, its insane, and it should care for its citizen who becomes helpless in its service in industrial operations.

The State should take the workman who suffers accidental injury and restore him physically, mentally and morally as quickly and as completely as possible to the end that he may be returned to industry. It should extend its strong helping hand in the hour of its citizens' misfortune and restore them as far as possible to their former capabilities to the end that they may again assume an independent position of benefit to themselves, to their people, to their neighbors and to the world.

STATE HOSPITAL.

At the last regular session of the Legislature State Senator Long of Lincoln county introduced a bill in the Senate providing for a State hospital fund, designed for the benefit of the workingmen of the State, which received a great deal of consideration from the Senate and elicited much favorable comment. It is probable that if Senator Long had introduced his measure at the beginning of the session, so that members might have had more opportunity to study its provisions and satisfy themselves as to the wisdom of same, it would have passed.

In substance the bill provided that every employer engaged in hazardous industry in the State should deduct from the pay of each of his employees one dollar per month to be paid into a State hospital fund, which should guarantee to all of its subscribers unlimited hospital and medical services in cases of sickness or accident, arising out of and occurring in the course of the employment.

The advantage to the workmen of the State rested in the fact that he could select whatever hospital and physician he desired in his locality, which would tend to relieve one of the present sources of discontent in connection with hospital contracts, the so-called "company doctor." As the proposed measure would place all hospitals and physicians on an equality so far as securing business was concerned, it would seem reasonable to assume that the best of service would be rendered.

The proposed plan would make little difference to the employer, except that possibly it would relieve him of the trouble he now experiences in arranging for contracts and

agreements between his men and the physicians and hospitals. All that would be necessary for him to do would be to collect one dollar per month from his employes and turn it in to the State hospital fund, and issue hospital tickets or certificates to sick and injured employees when necessary.

As it is estimated that there are now 74,000 workmen in the State operating under the protection of the Workmen's Compensation Law, it would mean a fund of not less than \$75,000.00 per month, or approximately \$900,000.00 a year, which it seems reasonable to assume would furnish the very best medical and hospital attention to all of the sick and injured workmen of the State. By comparison it would seem that this sum should be sufficient to furnish medical and hospital attention to the entire population of the State. Hence it is possible that under Senator Long's plan the monthly hospital fee to the workmen of the State might be reduced from one dollar per month to one-half that amount, which would be ample to provide the required service.

Therefore the plan proposed is entitled to the thoughtful consideration of the workmen of the State, and it would be well for the labor organizations of the State, as well as the employers and employees, to investigate the proposition thoroughly to the end that action may be taken by the next Legislature if deemed advisable.

DIFFICULTIES ATTENDING ADMINISTRATION.

With the enactment of the law four years ago, it was necessary to work out a complex system of compensation application, unique in its scope, because it provided three entirely different methods of dealing with the subject, leaving the choice to the employer.

In devising a proper system for handling the work the Board realized that in addition to being administrator of a peculiar and diverse compensation system, it was also in charge, through the medium of the State Fund Plan, of something embracing all the features of insurance, including the establishment and classification of industries and rates, and in fact every feature of the operation of an insurance business, except the procuring of business. An effective system without friction or serious trouble of any kind was

quickly placed in operation, and the past four years' experience established the fact that it has been exceptionally effective and economical.

The Board has endeavored in administering the Compensation Law to pursue a policy that would make practically effective the vital principles underlying workmen's compensation, and has given prompt, speedy and effective consideration to all claims in such a way as to guarantee fair treatment to the claimant, as well as to the party paying the costs. As stated, the four years' experience under the Act indicates practically unanimous satisfaction with the system installed by the Board for handling industrial accidents.

The work has steadily increased from year to year, although accidents have decreased in proportion to the men employed. If each year's accident could be entirely disposed of with the end of the year, the work of the department would not increase, but as in the case of fatal accidents the law provides for the payment of compensation for four hundred weeks, and in cases of permanent total disability, for life, it can readily be seen that the first fatal accident occurring under the law, which happened a few hours after the law became effective, is still on the books receiving attention on account of the necessity of checking up, receiving and filing the forty dollar compensation receipts every four weeks. This account will remain active at least once every month until November, 1923.

At least twenty per cent of the files opened the first year are still current, and thirty per cent of the second year's, while forty-five per cent of the third year's cases are still alive, and fully eighty per cent of the fourth year's business is still active. Therefore each year adds its quota to what may well be considered permanent business, and will so continue until the eighth year following the enactment of the law, when the first death compensation cases will be expiring by limitation.

As to whether or not this volume of work has been well and properly handled, time alone can tell. However, the Board does know that it has been transacted accurately, expeditiously and economically. During the four years' active operation of the law there has been no complaint of any

kind brought to the Board's notice to indicate that the work has not been performed to the satisfaction of the public. At any rate whether or not the system installed and the work done has effectively served the purpose in view, must be left to the public, and whether good or bad, the Board and its staff of employees are solely responsible, as no outside assistance of any kind was employed in devising or installing the system that has been used.

The Board's first secretary, Mr. A. G. McNaught, who left the service of the department to engage in the practice of law, had charge of installing the system, in which work he was ably assisted as to the accounting and auditing end by Mr. R. S. McAllister, who designed the books used in that work and is still in charge of them. He has prepared the statistical tables submitted in this report, and has prefaced them with a comprehensive explanatory statement, which should receive the attention of those studying the tables.

The system in use for the claim and statistical department was devised by Mr. G. G. Watt, who is now the efficient secretary of the Board, and was succeeded in the statistical department by Mr. E. B. Kennedy, who has since been advanced to the clerkship of the Safety Inspection Bureau. The statistical department is now looked after by Miss Helen Sanders and Miss Sadie Bryson, both under the direct supervision of Mr. McAllister, as is also the book-keeper, Mrs. Florence Gebauer.

The complete filing system, which now aggregates something over 68,000 separate and distinct files, has been in charge of Miss Elsie Abrahamson since its installation four years ago. At times she has been assisted in the filing work by Miss Sanders. The stenographic work has been done by Miss Pearl Florence and Miss Edna Leopold.

That the system of carrying the accounts, also recording and handling the claims, as well as preparing the statistics, is practical, effective and economical is certainly well evidenced by the fact that while upwards of 600,000 pieces of mail matter have been handled in the office during the past forty-eight months, the work has been done by a force of four accountants, including the auditor, one file clerk and three stenographers, comprising an entire force of eight outside of the secretary.

The salary of the entire office and clerical force, including the secretary, for the full four years aggregates \$48,900.00, or a little over \$1,000.00 a month. The foregoing figures supply their own commentary, and the Board respectfully requests Governor Stewart, or any citizen of the State, to compare them with the record of any other state operating under a compensation law, administered by a state board or commission, which in addition to administering the Compensation Act also has full supervision over the departments of Safety Inspection, including examination and inspection of all steam boilers, examination and issuance of licenses to engineers, inspection of quartz and coal mines, and in addition to gathering and compiling accident statistics, also secures and compiles the alien and illiterate employees' data, as we know that such an investigation will disclose the fact that the staff of office employees in any other state will exceed many times the number employed by this Board.

DISPUTED MATTERS.

In view of the fact that upwards of 6,000 cases involving the payment of compensation have come before the Board for adjudication during the past four years without any appeals being taken to the courts from the rulings made, would indicate that as to the matter of disputed questions the Board has not experienced much trouble. However, the Board realizes that the majority of compensation cases submitted failed to involve serious difficulties, hence were readily disposed of through the medium of issuing orders for the payment of the claims.

Nevertheless, despite the number of easy compensation cases submitted, there have been upwards of 26,000 questions passed upon by the Board, which were at least deemed of sufficient moment by the parties submitting them to call for or require the recording and transmission of decisions in each individual case. Hence it is only fair to assume that some considerable portion of this number involved serious and important questions. As all have been answered and no exceptions taken, it is reasonable to assume that they were answered correctly, or at least to the satisfaction of the questioner.

Since the law became operative four years ago the Board has handled something over 600,000 pieces of mail matter, making an average of about four hundred pieces per day, and it is safe to estimate that in this mass of correspondence not less than 100,000 questions have been asked, and while, as stated, it is acknowledged that a great majority of these questions were simple, yet many have been peculiar and perplexing; but it is evident that the answers made have satisfied those who did the asking, for no complaint to the contrary has been received.

As one of the primary objects of all compensation laws is the providing of speedy relief to the victims of industrial accidents, it is evident that the prompt handling of claims for compensation is entitled to first consideration, consequently in the great majority of the cases, and in fact whenever it is possible, the Board has insisted upon adjusting the claim for compensation upon the data and information furnished by the injured employee and his physician. Until such time as the employer disputes the claim the Board handles the matter under the assumption that the claim is honest and bona fide.

Immediately following the notice of accident blank forms submitting questions designed to secure all necessary information are sent to the injured party and also to the employer. Upon the return of these reports if the record indicates that the accident "arose out of and in the course of the employment," and there is no dispute on the matter of time or wages, an adjustment is immediately made of the claim. As this procedure governs in the great majority of cases, the claim does not furnish a "disputed matter," and all that it is necessary for the Board to do is to see that the injured workman receives his compensation promptly and in any event not later than the day upon which it is due.

The record of compensation payments under Plan Three is very gratifying, as it discloses only fourteen cases where the payment of compensation was delayed beyond the day when it was due. The record of prompt compensation payments under Plan One is equally as good, but unfortunately under Plan Two many of the insurance companies are dilatory in the payment of compensation, and in many cases the first payment on disability cases has not been made until

ninety days after the accident, due to the necessity of the claim being sent to the Eastern office of the company for adjustment.

In the case of all disputed matters the Board endeavors to keep the docket clear. During the first year's operation ordinary cases involving matters of dispute were decided on an average of not to exceed seventy days. The second year the average was reduced to fifty-five days and the third year to forty-eight days, while for the past year no disputed case has been held up for final decision beyond sixty days, and the average, covering the determination of every disputed question that has come before the Board during the year, has been less than thirty days.

Contested cases that are undetermined and unsettled for a period of six months are classified as special disputed cases, while cases that have been pending in an unsettled condition for a lesser period of time are classified as ordinary disputed cases, which represent over four-fifths of all contested claims. In addition to the two classes mentioned we have the cases where beneficiaries are residents of foreign countries, and also cases where it is necessary to secure data and information from across the water, which makes it impossible to secure the information that may be necessary and close the case inside of many months.

With the end of the present year we have twenty-six cases, involving claims of beneficiaries on account of fatal accidents who reside in the countries where war conditions have made it impossible to secure the information required by the Act.

For the purpose of securing the Supreme Court's interpretation of the provisions of the law relating to public corporations, two friendly test cases were arranged for through the medium of "agreed statement of facts." The court's findings on the questions involved gave general satisfaction throughout the State, with the result that all public corporations are now enjoying the protection of the Act without any disputes or misgivings.

In addition to the cases mentioned relating to the law governing municipalities, a third case involving the question of "arising out of and in the course of the employment" was submitted, like the others, on an agreed statement of facts

upon the mutual request of the claimant and the Industrial Accident Board for the express purpose of securing the interpretation of the Supreme Court on the question of whether or not accidental death caused by lightning fell within the purview of the Compensation Law. The decision of the court was to the effect that accidental death by lightning under ordinary circumstances did not come within the scope of the Act as an industrial accident entitled to compensation.

A fourth case indirectly involving the application of the law reached the Supreme Court through an action brought by a workman for damages on account of having been forcibly deprived of his liberty at the time of the North Butte mine fire, through being imprisoned below ground for three days, alleging that when the eight hours comprising his period of employment had passed, he automatically passed from under the provisions of the Compensation Law. The case, *Shea vs. North Butte Mining Company*, involved the constitutionality of the Workmen's Compensation Law, and the decision of the Supreme Court is given in full in the first section of this report.

In considering the question of disputed matters the most satisfactory feature, at least to the members of the Board, has been the fact that practically all claims for compensation have been settled with promptness and dispatch. There is also the gratifying fact that the cost of administering the law has been much less than was ever considered remotely possible at the time of its enactment by those who were familiar with similar propositions obtaining in other states. The record in this particular is so pleasing and satisfactory to the Board that the figures illustrating it will be submitted in detail in another portion of this report.

ASSISTANCE AND SUPPORT REQUESTED.

The Board is very anxious to effectively and satisfactorily administer the Compensation Law, and realizes that if it is to be successful, it must have the active, sympathetic support of all the interests of the State, as well as the assistance and co-operation of the employers and employees.

The members of the Board indulge in the belief that if they can continue to enjoy the support and assistance of the public to the same degree in the future that they have in the

past, the operation of the law will continue as highly satisfactory for the next four years as it has been for the past four.

Without exception the employers of the State operating under the law, and especially the officials and adjusters of the "big" companies, have contributed generously, out of the volume of their experience, suggestions that have proved exceptionally valuable in the work of applying the law to the many complex questions arising under its operation. The majority of the insurance companies writing compensation insurance in the State have rendered generous aid, and uniformly their attitude has been one of co-operation.

The Board's work has been greatly facilitated through the aid rendered by all the officials of the counties and cities of the State, also by the State officers, and especially by the Attorney General and the members of his staff. The Board is also anxious to return thanks for the kind assistance that it has at all times enjoyed from the members of the medical and legal professions of the State. This valuable co-operation, which has meant so much in solving the many complex questions arising, both of a technical medical nature and of a complicated legal nature, has been and is highly appreciated by the Board. It is doubtful as to what degree of progress the Board would have made in these matters had it not been for the generous, prompt and efficient assistance rendered by the lawyers and doctors.

All of the newspapers of the State have generously favored the efforts of the Board to successfully administer the law by publishing freely all matters of interest to the public concerning the operation of the Act, and have expressed a willingness to continue favoring the department and people of the State interested in compensation matters by publishing all data of public value, covering the law's operation.

It is the earnest hope of the Board that it will be favored by a continuance of the kind, effective co-operation that it has enjoyed during the past four years from the officials of the State and of the various counties and cities of the State, and also from the public press of the commonwealth, the employers and employees, including the directing heads of the large operating companies and the officers of

the various unions and organized labor bodies, as well as the medical and legal fraternity practicing in the State and the insurance companies writing compensation insurance.

The Board also craves permission to take advantage of this opportunity to return thanks for the receipt of much valuable assistance from the National Safety Council, National Foundries Association, the American Association for Labor Legislation and the "Monthly Review" by the United States Department of Labor. The grateful thanks of the Board are also due the several administrative boards and commissions of the different states operating under Compensation Laws for much valuable advice, which has been of inestimable value to the Board in connection with the consideration of cases involving similar questions, and the members gratefully acknowledge the obligation that they are under for the many precedents received, and earnestly hope that they will continue to be the recipients of further favors along the line mentioned.

ECONOMIC AND EFFICIENT ADMINISTRATION.

The one great objective of Compensation Laws is the substitution of a definite certain return on account of lost service for the uncertainty of possibly securing some return through tedious never-ending litigation. The realization of this objective calls for an enormous amount of detail work, requiring clerical efficiency of the highest order.

To properly care for the volume of this detail work required the elimination of everything of an experimental nature. Strict attention has been given to each detail of office management, and in every feature of the administration the strictest economy has been at all times and now is practiced.

An exhaustive study has been made along the line of simplifying matters and avoiding all useless work or routine of an unnecessary nature. Any change that could be made that promised increased efficiency or economy was instantly put into effect.

In a matter apparently as trifling as the outgoing daily mail, it was noticed that in the daily correspondence with large employers of labor and insurance carriers, emanating from different sections of the department, a saving could

be effected in postage by enclosing all letters going to such employers or insurance companies each day under one cover. Also experience soon indicated that postal cards could be substituted in many cases for letters, and the change was promptly effected. Even such a small economy, when applied to a mail aggregating about four hundred pieces a day, realized a substantial saving in the course of a year. If each letter had been sent in a separate envelope and letters used instead of postcards, the number would have greatly exceeded the figure given, and the cost of postage, which to date amounts to \$13,227.74, would have been fully one-third more.

In May, 1915, when the Board was organized, Governor Stewart instructed the members most forcibly to practice the strictest economy in connection with every detail of the work of administering the law. This admonition has been continually adhered to and the Board is of the opinion that even those who were opposed to the law, and who may still be out of sympathy with its objective, will concede that its administration has been efficient and economical in every respect.

The total disbursements of all kinds attending the organization of the Board, as well as the administration of the Act, including salaries, printing, supplies of all kinds, furniture, as well as the expense attending safety inspection, and all other outlays of the department since the approval of the Act on March 8, 1915, up to June 30, 1919, amount to \$105,399.05 against which has been earned by safety inspections made \$12,121.78, leaving a net total expenditure for the fifty-two months in question of \$93,177.27, which leaves a balance of over \$50,000.00 of the three legislative biennial appropriations to cover the remaining eighteen months of the six year appropriation period, and means the returning to the general fund of the State at the end of that period of a substantial balance. However, the advance in salaries authorized by the Legislature of 1919, taking effect March 1st past, will increase the annual salary expense of the department \$4,000.00, representing a thirty-three and one-third per cent raise.

In the expenditures referred to in the foregoing are items which will require no duplication for years, such as filing cabinets, furniture and permanent supplies for the office, which will do for all time, and represent an expenditure of nearly \$5,000.00. The item of printing alone amounts to \$12,208.13, and for postage \$13,227.74. If the amount expended for furniture, fixtures, printing and postage, aggregating \$30,536.10, were deducted from the total, it would reduce the amount actually chargeable to current administration expenses for the fifty-two months to a little over \$60,000, or less than one-half of the amount expended by any other compensation state for similar work, covering a corresponding period of time.

CONCLUSION.

The indulgence of Governor Stewart, as well as of those who may read this report, is petitioned for on account of the length of what might be termed the explanatory or introductory portion, and it is hoped that its tediousness may be compensated for by the interesting data contained in the statistical tables, which follow to the extent of sixty-eight in number, made up from a portion of the information gathered and recorded in the department.

As heretofore, the Board avails itself of this opportunity to guarantee to the Governor, and through him to the taxpayers of the State, that the cost of administering the Act for the present legislative appropriation period will not reach the amount appropriated by the Legislature, in which respect the present biennial is but a repetition of the former two periods, and as in the case of the preceding years, there need be no apprehension as to the possibility of a request being made for permission to operate under a deficiency claim, as is the case in so many of the other states operating under a Compensation Law.

In assuring your Excellency of this gratifying fact the Board respectfully requests that the expenditures made by this department in administering the law be compared with the cost attending similar work in any one of the other forty states operating under a Compensation Law. The

Board has investigated these conditions and the members are satisfied that if you will do this you will find no instance where a similar period covering like work has cost the state that may be selected less than twice the amount that this Board has expended, and in the majority of instances where the population or the work to be done compares with that of Montana the expenditures will be found to amount to four or five times what this Board has spent.

When considering the operating cost of the Montana law, it should be borne in mind that aside from the humanitarianism guaranteed by the beneficent features of the Act through the conservation of life and the remuneration for loss of earning power, the money expended in its operation is more than returned through the saving in court expense. Carefully compiled figures disclose the fact that prior to the enactment of the Workmen's Compensation Law in this State, something over one-fifth of the time of the courts was occupied in considering personal injury cases growing out of industrial accidents. With the advent of Workmen's Compensation, the courts are relieved of this burden, and there is thereby saved in time and attendant costs more than the total expense attending the administration of the Compensation Act. It is fair to assume that the saving in jury expense alone will more than equal the cost covering the operation of the law.

Judging by the experience of the past four years, it is safe to predict that the principle of compensation is a permanent fixture in Montana. The record clearly indicates that the people of this great State have placed the enduring stamp of approval upon the wisdom and justice of legislation that deals fairly with the man who toils that humanity may enjoy the fruit of his labor.

Since the law went into effect four years ago, the members of the Board have at all times devoted their best efforts to its administration. In doing so every effort has been applied to save the State's money, while assuring to the victims of industrial accidents the full measure of relief contemplated by the law without imposing any injustice or hardship upon the employer. The members have diligently applied themselves to the many complex problems arising of necessity out of a new statute with which the people were not acquainted. However, the public has now realized the

wonderful advantage possessed by the new system as compared to the old liability law redress for industrial injuries.

The people of this progressive State were quick to realize that in the light of modern industrial conditions the old personal liability method was wasteful and unjust; that it was a system that had its origin, including the rules of law adapted thereto, in a condition of industry that was simple and in its day and age comparatively safe; that regardless of how logical and feasible the system may have been at the time when conditions, comparatively speaking, justified the existence, today it was absolutely impracticable. The inevitable conclusion following such a line of reasoning has been and is that the law enacted at the urgent request and recommendation of Governor Stewart is now a fixed and inseparable portion of the body politic of Montana in perpetuity.

While all the employers and employees, as well as all the professional men of the State—in fact every one with whom the Board has come in contact—have been exceedingly kind and very helpful, yet the members of the Board fully realize that to Governor Stewart belongs the credit for what little success may have attended their labors. The magnificent support and assistance given the department at all times by the Governor has been of great material benefit, and it is doubtful if the Board could have accomplished a fraction of what it has, had it not been for his generous moral encouragement and personal influence.

In returning thanks and expressing appreciation for the executive assistance it has enjoyed, the Board requests permission to direct his Excellency's attention to the fact that it has at all times faithfully observed the positive instructions and strict admonition given to practice economy in connection with efficiency in every feature and detail of the work. The faithful observation of these instructions has resulted in the economic record made, and if the Board can continue to be favored with the generous help which it has been receiving from all interested parties in the State, supplemented by the comprehensive co-operation and valuable assistance of the Chief Executive, there will be no doubt as to the continued success of the operation of the law.

The members of the Board are profoundly conscious of the fact that without the Governor's active aid, they could have accomplished but little, and while deeply grateful to his Excellency for the favors of the past, they most earnestly hope and petition at this time for a continuance of that splendid support for the future which will most surely guarantee the continued satisfactory administration of the Act.

Respectfully submitted,
A. E. SPRIGGS,
GEO. P. PORTER,
W. J. SWINDLEHURST.

DATA OF COMPENSATION, ACCOUNTING, AND STATISTICAL EXHIBITS FURNISHED HEREWTH.

The exhibits herewith are furnished for the purpose of advising those interested in the Compensation Act the methods which have been devised and employed in handling the accounting and statistical problems coming under the Act.

There are three (3) plans in operation, known as Plans Number One, Two and Three; Plan One known as self-insurance; Plan Two handled by the insurance companies; Plan Three, State insurance. Plans One and Two are handled in the Receipt and Disbursement method; that is, we receive all this information from the employer operating under these two plans by receipts and disbursements only. Plan Number Three is handled in all matters by the Board direct. Each of these plans are carried entirely separate and distinct, in order that the results of each may be known. All three plans are then compiled together, showing the net results.

FINANCIAL STATEMENT.

Industrial Accident Fund.

This is known as a current cash fund, and controls some 110 sub-industrial funds; that is, each of these 110 sub-funds represents an industry and is carried separate and distinct as regards receipts and disbursements, and in no case do we borrow from one fund to assist another in paying for compensation.

Investment Fund.

Registered warrants paid by the different counties and cities in the state for premiums on their payrolls are carried in this fund and draw six per cent (6%) interest. Whenever these warrants are called, the amount so received is then transferred to the current cash fund or Industrial Accident Fund.

Industrial Reserve Fund.

This is the balance remaining in the cash reserve fund after investments have been made and may be used for purchasing further investments for the protection of injured employees.

Industrial Reserve Fund Investments.

This represents \$30,000.00 of Liberty Loan Bonds and \$2,843.28 of County Warrants. These investments are also used for a further protection of injured employees. The four funds herewith represented show a net balance of \$229,666.96, which may be all used for payments of compensation to injured employees.

Administrative Fund.

This fund represents the collections received from the Bureau of Safety Inspection and inspections of industrial plants, less certain charges which are permitted against this fund.

Trustee Account.

This represents bonds and securities deposited by Plans One and Three for guaranteeing all compensation payments that may become due for certain employers operating under these two plans.

Furniture and Fixtures.

This represents the amount expended for office fixtures out of the new appropriation, beginning March 1st, 1919.

Premiums and Inspection Fees Due.

This is the balance due on the assessment levied in the month of April, which has not been remitted by employers operating under Plan Number Three.

Known Disability.

These are claims filed with the Board by injured employees for permanent disabilities only.

Expenditures Authorized

See contra Account Appropriations.

Premium Income.

This represents the net premium collected, less compensation paid. You will note that there remains on hand

of this premium income \$2.34 for every dollar of this account expended, which to say the least is an excellent showing.

Administrative Income.

This is for fees collected by the Bureau of Safety Inspection, and also for inspections of industrial plants by this Board.

Interest Earned.

This is the amount of interest received from the State Treasurer for current funds and from investments held, and is transferred to the Industrial Reserve Fund at stated periods.

Special Deposits.

These are required from certain employers for guaranteeing the premiums that may become due during the calendar year.

Bonds in Trust.

See contra Account Trustee Account.

Accrued Disabilities.

See contra Account Known Disabilities.

Appropriation.

This is the amount appropriated by the Legislature for the period beginning March 1st, 1919, and ending February 28th, 1921. \$54,000.00 of this is represented by the Industrial Accident Board, and \$57,600.00 is represented by the Bureau of Safety Inspection. We have drawn from this new appropriation \$17,321.04, which leaves a balance available for the rest of the period of \$94,278.96.

In this connection we might state that of the old appropriation ending February 28th, 1919, the Industrial Accident Board returned \$2,760.62. The Bureau of Safety Inspection returned \$3,243.83. The reason that these figures are not shown on this statement is that the appropriation ending every two years on February 28th requires us to balance off our expenses for that period, and as our fiscal year ends June 30th, they can not be shown here in detail. All that was deemed necessary to be shown was the amount of money returned to the State out of the appropriation.

Fund Balances by Classes.

This exhibits the net balances in the various classes of industry for the four years period, and also shows the authorized rates by law and the actual rates collected for the four years period. The percentage of premium contributed and compensation payments made is also shown.

Premium and Compensation Data Plan No. Three.

This shows the net premiums collected by years and the compensation paid. Also the various percentage costs to the employers, based on premium and compensation.

Payroll Costs, Plan Number Three.

This represents the total payrolls, premiums, and compensation from July 1st, 1915 to December 31st, 1918. It will be noted that the average cost to employers is one and one-tenth of one per cent ($1\frac{1}{10}\%$).

STATISTICS.

Compensation Payments.

These are exhibited by individual plans classified as to industries. Then all three plans are combined, showing the net compensation payments. These payments are divided into Compensation not Fatal, Fatal, Medical, Hospital and Burial Fees.

Accidents.

These are exhibited by plans classified as to injury and degree of disability. These accidents are divided into Temporary Total, Permanent Partial, Permanent Total, and Fatal degree. All Plans are then combined together, showing the total number of accidents. They are also classified as to parts of body affected and nature of injury. The detail for the current year of Fatal, Permanent Partial and Permanent Total disabilities is also given.

Time and Wages Lost to Employes.

This should be an interesting statement to the employer as well as to the employe, in that it shows the total number of days and money value of same, lost on account of acci-

dents. The well known slogan "Safety First" when followed out, could be well applied in reducing the money lost to the employer and the employe on account of accident.

We are also exhibiting the individual accounts of employers under Plan Number Three for the calendar year ending December 31st, 1918, at which time their payrolls are adjusted.

Records are also kept showing the number of accidents, and amount of compensation disbursed under Plans One and Two.

We trust that the exhibits herewith furnished will be of some benefit to the employers engaged in the various industries exhibited, and desire to express our appreciation of their consideration in furnishing this department with any and all information that we have required.

Respectfully Submitted,

ACCOUNTING DEPARTMENT,

R. S. McALLISTER,

Chief Accountant.

FINANCIAL STATEMENT.

ASSETS.

Industrial Accident Fund	\$184,523.40	
Investment Fund (Registered Warrants)....	5,827.27	
Industrial Reserve Fund	10,652.25	
Industrial Reserve Fund Investments.....	32,843.28	
Total All Funds	233,846.20	
Less Unpaid Warrants	4,179.24	
Balance All Funds		\$229,666.96
Administrative Fund		61,779.13
Trustee Account		80,000.00
Furniture and Fixtures		190.60
Premiums Due		4,607.93
Inspection Fees Due		129.00
Known Disabilities		30,000.00
Expenditures Authorized	111,600.00	
Less Expenditures Made	17,511.64	
Balance Unexpended		94,088.36
		\$500,461.98

LIABILITIES.

Premium Income	\$390,997.56	
Less Compensation Paid	164,835.26	
Net Premium Income		\$226,162.30
Administrative Income		61,908.13
Interest Earned		3,602.32
Special Deposits		4,510.27
Bonds in Trust		80,000.00
Accrued Disabilities		30,000.00
Appropriation	\$111,600.00	
Less Claims Drawn	17,321.04	
Balance Available		94,278.96
		\$500,461.98

ADMINISTRATIVE EXPENSES.

Made From Appropriation, March 1919, ending February, 1921.

Salary Commissioner	\$ 1,989.00
Expense Commissioners	667.15
Salary Secretary	800.00
Salary Accountant	800.00
Salary Bookkeeper	500.00
Salary Statistician	440.00
Salary Pay Roll Clerk	440.00
Salaries Stenographers	926.00
Salary File Clerk	600.00
Medical Examinations	30.00
Printing and Stationery	420.55
Postage	491.91
Telephone and Telegraph	149.53
Bond Premiums	56.67
Office Expense	58.50
Publications and Periodicals	15.00
Claim Investigations	10.80
Boiler Inspectors' Salaries	3,160.00
Boiler Inspectors' Expense	2,248.57
Coal Mine Inspector's Salary	900.00
Coal Mine Inspector's Expense	476.11
Quartz Mine Inspector's Salary	1,100.00
Quartz Mine Inspector's Expense	471.30
Pay Roll Investigations	379.35
	<hr/>
	\$17,130.44

FUND BALANCES BY CLASSES.

July 1, 1915, to June 30, 1919.

CLASS NO. 1.

Moving Picture Operators; Bookbinding; Printing and Publishing; Unclassified.

		Actual Rate			
		1st Yr.	2d Yr.	3d Yr.	4th Yr.
		.0021	.0021	.0035	.0035
Authorized Rate 65/100 of 1%.....					
Premium Income	\$ 4,870.80				
Less Refunds	255.29				
Net Premium Income.....	\$ 4,615.51				
Compensation	298.35				
Medical and Hospital	281.00				
Transfers	487.05				
Balance	3,549.11				
.011 Premium Contributed.					
.0035 Compensation Payments.					

Or there remains \$7.96 of premium for every dollar compensation expended.

CLASS NO. 2.

Lumber; Wood, Coal Yards and Coal Docks Without Power Machinery; Steam Bakeries.

		Actual Rate			
		1st Yr.	2d Yr.	3d Yr.	4th Yr.
		.0026	.0026	.004	.004
Authorized Rate 8/10 of 1%.....					
Premium Income	\$ 626.15				
Less Refunds	33.41				
Net Premium Income.....	\$ 592.74				
Compensation	220.00				
Medical and Hospital	183.00				
Transfers	62.60				
Balance	127.14				
.0015 Premium Contributed.					
.0024 Compensation Payments.					

Or there remains \$1.47 of premium for every dollar compensation expended.

CLASS NO. 3.

Candy Manufacturing; Plant Repairs; Working in Rubber; Butcher Shops; Marble Works; Teaming and Transfer.

		Actual Rate			
		1st Yr.	2d Yr.	3d Yr.	4th Yr.
		.0043	.0043	.0065	.0065
Authorized Rate 1.3%.....					
Premium Income	\$ 6,558.37				
Less Refunds	255.77				
Net Premium Income	\$ 6,302.60				
Compensation	1,987.33				
Medical and Hospital	1,029.00				
Transfers	657.07				
Balance	2,629.20				
.016% Premium Contributed.					
.0182% Compensation Payments.					

Or there remains \$2.08 of premium for every dollar compensation expended.

CLASS NO. 4.

Creameries; Tile Setting; Soap Manufacturing; Installing Heating Systems; Painting and Decorating, Inside.

		Actual Rate			
		1st Yr.	2d Yr.	3d Yr.	4th Yr.
		.0046	.0046	.007	.007
Authorized Rate 1.4%.....					
Premium Income	\$ 1,271.01				
Less Refunds	14.82				
Net Premium Income.....	\$ 1,256.19				
Compensation	570.00				
Medical and Hospital	194.00				
Transfers	905.94				
Balance	365.07				
.0032% Premium Contributed.					
.0046% Compensation Payments.					

Or there remains \$1.64 of premium for every dollar compensation expended.

CLASS NO. 5.

Breweries; Bottling Works; Grain Elevators; Machine Shops; Lathing and Plastering; Stone Cutting; Electrical Apparatus Installing, Inside; Covering Boilers; Street Work; Asphalt Laying; Well Drilling; Lumber, Wood and Coal Yards and Coal Docks, with Power Machinery; Blacksmith Shops.

			1st Yr.	2d Yr.	3d Yr.	4th Yr.
Authorized Rate 1.5%.....			.005	.005	.0075	.0075
Premium Income	\$15,957.74					
Less Refunds	748.61					
Net Premium Income		\$15,209.13				
Compensation	7,509.22					
Medical and Hospital	2,183.35					
Burial	75.00					
Transfers	1,594.33					
Balance		3,847.23				
.039% Premium Contributed.						
.0592% Compensation Payments.						

Or there remains \$1.55 of premium for every dollar of compensation expended.

CLASS NO. 6.

Laundries; Cleaning Works; Cabinet Making; Foodstuffs, Work In; Flour Mills.

			1st Yr.	2d Yr.	3d Yr.	4th Yr.
Authorized Rate 1.6%.....			.0053	.0053	.008	.008
Premium Income	\$ 2,035.24					
Less Refunds	119.45					
Net Premium Income		\$ 1,915.79				
Compensation	2,453.20					
Medical and Hospital	646.00					
Transfers	203.51					
Balance Overdraft		1,386.92				
.0049% Premium Contributed.						
.0188% Compensation Payments.						

Or there is a deficit of \$1.61 of premium for every dollar of compensation expended.

CLASS NO. 7.

Sugar Factories; Brick Manufacturing; Tile and Terra Cotta Manufacturing.

			1st Yr.	2d Yr.	3d Yr.	4th Yr.
Authorized Rate 1.8%.....			.006	.006	.009	.009
Premium Income	\$ 1,107.02					
Less Refunds	54.04					
Net Premium Income		\$ 1,052.98				
Compensation	24.30					
Medical and Hospital	149.00					
Transfers	111.31					
Balance		768.37				
.0027% Premium Contributed.						
.0010% Compensation Payments.						

Or there remains \$6.07 of premium for every dollar of compensation expended.

CLASS NO. 8.

Water and Gas Works; Road Work, No Blasting; Plumbing; Waterworks Construction; Public Corporations Only.

			1st Yr.	2d Yr.	3d Yr.	4th Yr.
Authorized Rate 1.9%.....			.0063	.0063	.0095	.0095
Premium Income	\$45,476.52					
Less Refunds	3,355.98					
Net Premium Income		\$42,120.54				
Compensation	13,493.19					
Medical and Hospital	3,513.65					
Burial	375.00					
Transfers	4,548.05					
Balance		20,190.65				
.10% Premium Contributed.						
.105% Compensation Payments.						

Or there remains \$2.42 of premium for every dollar of compensation expended.

CLASS NO. 9.

Foundries; Cold Storage and Packing Plants; Janitors and Heating Plants; Ferries; Operating; Stone Crushing; Hot Flooring Composition; Butcher Shops With Slaughtering.

		1st Yr.	Actual 2d Yr.	Rate 3d Yr.	4th Yr.
Authorized Rate 2%.....		.0066	.0066	.01	.01
Premium Income	\$13,866.84				
Less Refunds	721.33				
Net Premium Income					
Compensation	540.75				
Medical and Hospital	220.50				
Transfers	1,386.73				
Balance					
.034% Premium Contributed.					
.0046% Compensation Payments.					
Or there remains \$17.27 of premium for every dollar of compensation expended.					

CLASS NO. 10.

Garbage Works; Crematories; Asphalt Manufacturing; Sash and Door Factories.

		1st Yr.	Actual 2d Yr.	Rate 3d Yr.	4th Yr.
Authorized Rate 2.2%.....		.0073	.0073	.011	.011
Premium Income	\$ 3,845.88				
Less Refunds	102.92				
Net Premium Income					
Compensation	1,770.60				
Medical and Hospital	168.50				
Transfers	384.60				
Balance					
.0096% Premium Contributed.					
.0117% Compensation Payments.					
Or there remains \$1.93 of premium for every dollar of compensation expended.					

CLASS NO. 11.

Work in Building Material.

		1st Yr.	Actual 2d Yr.	Rate 3d Yr.	4th Yr.
Authorized Rate 2.25%.....		.0075	.0075	.0112	.0112
Premium Income	\$ 67.14				
Less Refunds	13.01				
Net Premium Income					
Compensation					
Medical and Hospital					
Transfers	6.72				
Balance					
.0001% Premium Contributed.					
.0000% Compensation Payments.					
Entire premium remains.					

CLASS NO. 12.

Planing Mills; Cement Manufacturing.

		1st Yr.	Actual 2d Yr.	Rate 3d Yr.	4th Yr.
Authorized Rate 2.3%.....		.0076	.0076	.011	.011
Premium Income	\$ 4,087.34				
Less Refunds	47.05				
Net Premium Income					
Compensation	731.44				
Medical and Hospital	241.15				
Transfers	408.74				
Balance					
.010% Premium Contributed.					
.0059% Compensation Payments.					
Or there remains \$4.15 of premium for every dollar of compensation expended.					

CLASS NO. 13.

Road Work With Blasting.

		1st Yr.	Actual 2d Yr.	Rate 3d Yr.	4th Yr.
Authorized Rate 2.4%.....		.008	.008	.012	.012
Premium Income	\$ 1,052.08				
Less Refunds	45.81				
Net Premium Income					
Compensation	243.50				
Medical and Hospital	122.00				
Burial	150.00				
Transfers	105.21				
Balance					
.0026% Premium Contributed.					
.0031% Compensation Payments.					
Or there remains \$1.95 of premium for every dollar of compensation expended.					

CLASS NO. 14.

Milling Ore; Hauling Gravel; Gravel Pits Operating; Wood Saws Operating; Painting and Decorating Exterior; Saw Mills; Bridge Work Factories; Steam Threshing.

			Actual Rate			
			1st Yr.	2d Yr.	3d Yr.	4th Yr.
Authorized Rate 2.5%.....			.0083	.0083	.0125	.0125
Premium Income	\$14,513.15					
Less Refunds	1,015.27					
Net Premium Income		\$13,497.88				
Compensation	3,859.59					
Medical and Hospital	439.70					
Burial	225.00					
Transfers	1,451.33					
Balance		\$ 7,522.26				
.034% Premium Contributed.						
.0274% Compensation Payments.						

Or there remains \$2.98 of premium for every dollar of compensation expended.

CLASS NO. 15.

Ice Harvesting; Engine Repairs; Logging; Quarries Operating.

			Actual Rate			
			1st Yr.	2d Yr.	3d Yr.	4th Yr.
Authorized Rate 2.75%.....			.0091	.0091	.0137	.0137
Premium Income	\$23,628.32					
Less Refunds	937.94					
Net Premium Income		\$22,690.38				
Compensation	11,164.84					
Medical and Hospital	833.75					
Burial	525.00					
Transfers	2,362.81					
Balance		\$ 7,803.98				
.058% Premium Contributed.						
.0759% Compensation Payments.						

Or there remains \$1.81 of premium for every dollar of compensation expended.

CLASS NO. 16.

Waterworks Construction, Not Municipal; Sewer Construction Maximum 7 Feet; Logging Railways.

			Actual Rate			
			1st Yr.	2d Yr.	3d Yr.	4th Yr.
Authorized Rate 3%.....			.01	.01	.015	.015
Premium Income	\$ 5,812.09					
Less Refunds	891.80					
Net Premium Income		\$ 4,920.29				
Compensation	552.81					
Medical and Hospital	221.20					
Transfers	581.21					
Balance		\$ 3,565.07				
.012% Premium Contributed.						
.0046% Compensation Payments.						

Or there remains \$6.35 of premium for every dollar of compensation expended.

CLASS NO. 17.

Metal Work Inside; Railway Construction No Blasting; Carpenters and Builders; Electric Light Plants; Telephone and Telegraph; Electrical Amusement Systems.

			Actual Rate			
			1st Yr.	2d Yr.	3d Yr.	4th Yr.
Authorized Rate 3.25%.....			.0108	.0108	.0162	.0162
Premium Income	\$38,195.62					
Less Refunds	3,285.74					
Net Premium Income		\$34,909.88				
Compensation	17,960.75					
Medical and Hospital	3,100.20					
Burial	150.00					
Transfers	3,756.68					
Balance		9,942.25				
.090% Premium Contributed.						
.1286% Compensation Payments.						

Or there remains \$1.64 of premium for every dollar of compensation expended.

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CLASS NO. 18.

Mining, Not Coal; Coal Mining.

			Actual Rate			
			1st Yr.	2d Yr.	3d Yr.	4th Yr.
Authorized Rate 3.5%.....			.011	.011	.017	.017
Premium Income	\$157,399.70					
Less Refunds	1,820.13					
Net Premium Income		\$155,579.57				
Compensation	62,951.84					
Medical and Hospital	3,242.85					
Burial	2,015.00					
Transfers	15,740.70					
Balance		\$71,629.18				
.402% Premium Contributed.						
.4138% Compensation Payments.						

Or there remains \$2.28 of premium for every dollar of compensation expended.

CLASS NO. 19.

Pile Driving; Railway Construction With Blasting; Clearing Land; Iron and Tin Works; Cellar Excavations.

			Actual Rate			
			1st Yr.	2d Yr.	3d Yr.	4th Yr.
Authorized Rate 3.75%.....			.0125	.0125	.0187	.0187
Premium Income	\$ 9,754.58					
Less Refunds	1,272.39					
Net Premium Income		\$ 8,482.19				
Compensation	3,988.30					
Medical and Hospital	35.50					
Burial	225.00					
Transfers	1,001.80					
Balance		3,231.59				
.021% Premium Contributed.						
.0257% Compensation Payments.						

Or there remains \$1.99 of premium for every dollar of compensation expended.

CLASS NO. 20.

Electrical Apparatus Installing Outside; Tunnel Work; Shaft Sinking.

			Actual Rate			
			1st Yr.	2d Yr.	3d Yr.	4th Yr.
Authorized Rate 4%.....			.013	.013	.02	.02
Premium Income	\$ 4,563.48					
Less Refunds	278.50					
Net Premium Income		\$ 4,284.98				
Compensation	2,104.90					
Medical and Hospital	47.15					
Burial	75.00					
Transfers	485.60					
Balance		1,572.33				
.011% Premium Contributed.						
.0135% Compensation Payments.						

Or there remains \$1.92 of premium for every dollar of compensation expended.

CLASS NO. 21.

Machinery Moving; Roof Work; Brick Work Construction; Bridge Building.

			Actual Rate			
			1st Yr.	2d Yr.	3d Yr.	4th Yr.
Authorized Rate 4.5%.....			.015	.015	.022	.022
Premium Income	\$21,987.02					
Less Refunds	1,397.45					
Net Premium Income		\$20,589.57				
Compensation	6,610.95					
Medical and Hospital	507.50					
Burial	375.00					
Transfers	2,198.73					
Balance		\$10,897.39				
.053% Premium Contributed.						
.0454% Compensation Payments.						

Or there remains \$2.74 of premium for every dollar of compensation expended.

CLASS NO. 22.

Excavations; Sewer Construction Over 7 Feet.

		1st Yr.	Actual 2d Yr.	Rate 3d Yr.	4th Yr.
Authorized Rate 5%.....		.016	.016	.025	.025
Premium Income	\$ 4,908.82				
Less Refunds	212.56				
Net Premium Income	\$ 4,696.26				
Compensation	1,957.45				
Medical and Hospital	410.00				
Transfers	490.87				
Balance	1,837.94				
.012% Premium Contributed.					
.0143% Compensation Payments.					

Or there remains \$1.98 of premium for every dollar of compensation expended.

CLASS NO. 23.

Concrete Structures; Concrete and Cement Work; Firemen.

		1st Yr.	Actual 2d Yr.	Rate 3d Yr.	4th Yr.
Authorized Rate 6%.....		.02	.02	.03	.03
Premium Income	\$20,212.51				
Less Refunds	608.95				
Net Premium Income	\$19,603.56				
Compensation	323.40				
Medical and Hospital	347.50				
Transfers	2,021.23				
Balance	16,911.43				
.050% Premium Contributed.					
.0040% Compensation Payments.					

Or there remains \$29.25 of premium for every dollar of compensation expended.

CLASS NO. 24.

Constructing and Repairing Steel Frames.

		1st Yr.	Actual 2d Yr.	Rate 3d Yr.	4th Yr.
Authorized Rate 6.5%.....		.021	.021	.032	.032
Premium Income	\$ 1,306.63				
Less Refunds	42.99				
Net Premium Income	\$ 1,263.64				
Compensation	1,044.00				
Medical and Hospital	97.05				
Transfers	130.65				
Balance Overdrawn	8.06				
.0032% Premium Contributed.					
.0069% Compensation Payments.					

Or there is a deficit of \$1.10 of premium for every dollar of compensation expended.

CLASS NO. 25.

House Moving and Wrecking; Chimney Construction.

		1st Yr.	Actual 2d Yr.	Rate 3d Yr.	4th Yr.
Authorized Rate 6.75%.....		.0225	.0225	.0335	.0335
Premium Income	\$ 133.23				
Less Refunds					
Net Premium Income	\$ 133.23				
Compensation					
Medical and Hospital					
Transfers	13.33				
Balance	119.90				
.0003% Premium Contributed.					
.0000% Compensation Payments.					

Entire premium remains.

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CLASS NO. 27.

Non-Hazardous.

		Actual Rate			
		1st Yr.	2d Yr.	3d Yr.	4th Yr.
		.0016	.0016	.0025	.0025
Authorized Rate $\frac{1}{2}$ of 1%.					
Premium Income	\$ 714.91				
Less Refunds	31.35				
Net Premium Income	\$ 683.56				
Compensation	30.00				
Medical and Hospital	41.00				
Transfers	71.49				
Balance	541.07				
.0017% Premium Contributed.					
.0004% Compensation Payments.					
Or there remains \$9.62 of premium for every dollar of compensation expended.					
Cash Balance All Funds.....	\$181,164.90				
Interest and Special Deposits Not Distributed.....	5,006.53				
Cash All Industry Funds.....					\$186,171.43
Balance Industrial Accident Fund.....	\$184,523.40				
Investment Fund (Registered Warrants).....	5,827.27				
	\$190,350.67				
Less Unpaid Warrants.....	4,179.24				
					\$186,171.43

ADMINISTRATIVE INCOME.

By Industries.

 From July 1st, 1915, to June 30, 1919.

Alcohol, Bottling Works and Breweries.....	\$ 195.00
Brick and Cement Plants	49.25
Candy, Cracker and Soap Factories.....	35.00
Carriage Works	10.00
Coal Mines	1,114.43
Creameries	195.00
Flax Mills	10.00
Flour Mills	315.00
Garage and Machine Shops	35.00
Gas and Water Plants	70.00
Grain Elevators	1,984.85
Ice and Refrigerating Plants	25.00
Iron Works and Foundries	35.00
Laundries, Dye and Cleaning Works.....	510.00
Light and Power Plants	422.07
Lime and Stone Quarries	10.00
Lumber Operations	502.32
Metal Mining, Milling and Smelters	5,424.33
Miscellaneous	124.46
Packing Plants and Butcher Shops	40.00
Street Railways	54.30
Sugar Factories	30.19
Bureau of Safety Inspection	61,374.39
	<hr/>
	\$72,565.59

PREMIUM AND COMPENSATION DATA FOR FOUR FISCAL YEARS. PLAN NUMBER THREE.

First Fiscal Year. June 30th, 1916.

Premium Income	\$ 29,058.86
11% paid for Temporary Total Disabilities.	
6% paid for Permanent Partial Disabilities.	
4% paid to Doctors and Hospitals.	
Compensation	6,303.35
52% paid for Temporary Total Disabilities.	
26% paid for Permanent Partial Disabilities.	
22% paid to Doctors and Hospitals.	

Second Fiscal Year. June 30th, 1917.

Premium Income	43,343.84
31% paid for Temporary Total Disabilities.	
6% paid for Permanent Partial Disabilities.	
30% paid for Fatal Disabilities.	
9% paid to Doctors and Hospitals.	
3% paid to Undertakers.	
Compensation	34,587.17
39% paid for Temporary Total Disabilities.	
7% paid for Permanent Partial Disabilities.	
38% paid for Fatal Disabilities.	
11% paid to Doctors and Hospitals.	
4% paid to Undertakers.	

Third Fiscal Year. June 30th, 1918.

Premium Income	132,277.58
15% paid for Temporary Total Disabilities.	
8% paid for Permanent Partial Disabilities.	
13% paid for Fatal Disabilities.	
5% paid to Doctors and Hospitals.	
1% paid to Undertakers.	
Compensation	55,236.29
36% paid for Temporary Total Disabilities.	
19% paid for Permanent Partial Disabilities.	
29% paid for Fatal Disabilities.	
13% paid to Doctors and Hospitals.	
2% paid to Undertakers.	

Fourth Fiscal Year. June 30th, 1919.

Premium Income	181,709.35
16% paid for Temporary Total Disabilities.	
8% paid for Permanent Partial Disabilities.	
8% paid for Fatal Disabilities.	
3% paid to Doctors and Hospitals.	
8% paid to Undertakers.	
Compensation	68,708.45
44% paid for Temporary Total Disabilities.	
22% paid for Permanent Partial Disabilities.	
22% paid for Fatal Disabilities.	
8% paid to Doctors and Hospitals.	
2% paid to Undertakers.	

All Four Fiscal Years.

Premium Income	386,389.63
17% paid for Temporary Total Disabilities.	
7% paid for Permanent Partial Disabilities.	
11% paid for Fatal Disabilities.	
4% paid to Doctors and Hospitals.	
1% paid to Undertakers.	
Compensation	164,835.26
40% paid for Temporary Total Disabilities.	
18% paid for Permanent Partial Disabilities.	
27% paid for Fatal Disabilities.	
11% paid to Doctors and Hospitals.	
2% paid to Undertakers.	

NOTE—It will be seen from this data that we have forty-three per cent of our premium income unexpended, or \$2.34 on hand for every dollar of premium income expended.

PAY ROLL COSTS —PLAN NO. 3.

Total Pay Rolls, Premiums on same and Compensation Paid, from July 1, 1915, to December 31, 1918. These pay rolls are adjusted at the end of the Calendar Year only.

	Total Pay Rolls as Above		Total Premiums as Above		Total Compensation as Above	
	To Dec. 31, 1917	To Date 1918	To Dec. 31, 1917	To Date 1918	To Dec. 31, 1917	To Date 1918
Private Employers.....	\$10,159,236.33	\$10,747,628.05	\$20,906,864.38	\$157,639.32	\$259,273.64	\$52,511.63
Counties.....	3,804,971.29	1,349,208.70	5,154,179.99	15,028.59	40,473.63	3,620.03
Cities.....	2,077,587.61	1,013,337.12	3,091,124.73	18,737.48	32,469.27	2,407.25
School Districts.....	422,547.04	205,767.26	628,314.30	2,932.80	5,128.30	97.50
State Institutions.....	212,649.77	316,698.24	529,348.01	1,376.77	26.00	504.35
				2,715.58	4,092.35	
	\$16,677,192.04	\$13,632,639.37	\$30,309,831.41	\$191,310.78	\$60,116.61	\$60,813.56
					\$341,437.19	\$120,930.17

PREMIUM COSTS TO CLASSIFIED EMPLOYERS

	To December 31, 1917		For 1918	
	To December 31, 1917	To Date	To December 31, 1917	To Date
Average Cost to All Private Employers.....		.0100	.0146	.0124
Average Cost to All Counties.....		.0066	.0112	.0078
Average Cost to All Cities.....		.0090	.0135	.0105
Average Cost to All School Districts.....		.0069	.0106	.0081
Average Cost to All State Institutions.....		.0064	.0085	.0077
Average Cost to All Employers.....		.0090	.0140	.0112

ACCIDENT COST TO CLASSIFIED EMPLOYERS

	To December 31, 1917		For 1918	
	To December 31, 1917	To Date	To December 31, 1917	To Date
Average Cost for All Private Employers.....		.5118	.3331	.4031
Average Cost for All Counties.....		.2226	.2408	.2294
Average Cost for All Cities.....		.1284	.2971	.1997
Average Cost for All School Districts.....		.0088	.0444	.0240
Average Cost for All State Institutions.....		.4004	.1556	.1232
Average Cost for All Employers.....			.3178	.3541

EMPLOYERS AND EMPLOYEES UNDER ACT, ALL PLANS, AS OF JUNE 30, 1919

The Employees here shown are taken from the initial reports of the Employers, and does not represent the total Employees at this period.

INDUSTRIES	Plan No 1		Plan No. 2		Plan No. 3		Totals	
	Employers	Employees	Employers	Employees	Employers	Employees	Employers	Employees
Bakeries			10	47	6	52	16	99
Blacksmith Shops			4	12	4	9	8	21
Boot and Shoe Mfg.			3	18			3	18
Brick Chimneys, Constr.			1				1	
Brick Kilns			4	74	6	90	10	164
Brickwork Construction			11	75	8	40	19	115
Bridge Building	1		1	10	10	72	12	82
Bridge Material, Mfg.					1	7	1	7
Butcher Shops, not Specified			10	61	7	28	17	89
Butcher Shops, Slaughtering			7	29	2	11	9	40
Cabinet Making			2	4	3	4	5	8
Candy and Cracker Mfg.			14	140			14	140
Canneries, Fruit, Veg'bles, Etc			2	80	1	39	3	119
Cellar Excavations			4	45	1	40	5	85
Cement Mfg.					1	33	1	33
Coal & Wood Yards, With Power			9	322	16	59	25	281
" " Without			20	160	4	22	24	182
Concrete Structures					1	11	1	11
Concrete Struc., Not Specified					5	62	5	62
Contractors & Builders			96	760	76	694	172	1,454
Contractors, Clearing Land	1	10					1	10
Creameries			19	181	6	28	25	209
Dams and Reservoirs, Const.					4	29	4	29
Dredges, Operating	1	85					1	85
Electric Power	4	1,385	5	115	20	73	29	1,573
Elec. Amusements, Oper.	1	63	2	18			3	81
Electric Railways	3	700					3	700
Ferries, Operating					1	14	1	14
Elec. App., Installing Inside			12	73	10	36	22	109
Excavations, Not Specified					1		1	
Explosives, Mfg.	1						1	
Elec. App., Installing Outside			3	17	1	28	4	45
Flour Mills			14	341	9	49	23	390
Foodstuffs, Work in			11	78	1	10	12	88
Foundries	2	61	17	289	13	63	32	413
Galvanized Tin & Iron Work			5	16	3	3	8	19
Garages, With Power			90	527	15	71	105	598
Garages, Without Power			9	85			9	85
Gas Engines, Mfg.			1	18			1	18
Gas & Water Wks., Oper.	4	229	6	70	7	305	17	604
Glass Setting			4	9			4	9
Grain Elevators	5	93	99	822	39	161	143	1,076
Grain Elevators, Const.			5	112			5	112
Gravel, Hauling			3	66	1	1	4	67
Gravel Pits, Operating			1	12	3	12	4	24
Heating Systems, Installing					1	2	1	2
Hot Flooring Composition			1	15			1	15
Ice Harvesting	1	30	8	97	5	23	14	150
Iron and Steel Frames, Structure and Parts			3				5	25
Iron and Steel Mfg.					1	4	1	4
Lathing and Plastering				3	8	73	10	76
Laundries and Dye Works			35	694	11	89	46	783
Laying Mains, Blasting					1	2	1	2
Lime								
Logging	5	676	2	173	43	1,013	50	1,862
Machine Shops	2	47	35	876	4	10	41	933
Machinery Installing	2	33	26	102	1	4	29	139
Machinery and Safes, Moving			6	178	4	59	10	237
Marble Works			1	3	1	8	2	11
Mattress Mfg.			2	44			2	44
Milling Ore			3	24	3	49	6	75
Metal Stamping			3	24	1	10	4	34
Mining, Not Coal	9	13,268	12	273	134	2,288	155	15,829
Mining, Coal	5	2,332			49	1,241	54	3,573
Moving Pictures			16	294			16	294

EMPLOYERS AND EMPLOYEES UNDER ACT, ALL PLANS, AS OF JUNE 30, 1919

(Continued)

INDUSTRIES	Plan No 1		Plan No. 2		Plan No. 3		Totals	
	Employers	Employees	Employers	Employees	Employers	Employees	Employers	Employees
Non-hazardous					10	94	10	94
Ornament Work (Metal)					1	1	1	1
Painting, Etc.			9	81	23	134	32	215
Painting & Dec., Interior			9	203	8	30	17	233
Paving, Asphalt			2	14	4	48	6	62
Paving, Concrete Sidewalks			1	6	13	467	19	473
Pile								
Planing Mills			7	46	10	56	17	102
Plumbing			41	292	20	66	61	358
Printing and Publishing	2	109	31	385	25	201	58	695
Quarries, Operating			3	37	2	12	5	49
Railway Const., Blasting	1		5	500	5	360	11	860
Road Work With Blasting					2	14	2	14
Road and Street Work					26	308	26	308
Roof Work			4	19	1	3	5	22
Sash and Door Factory			2	21	2	7	4	28
Saw Mills	7	1,418	1	9	34	576	42	2,003
Sewer Const., Max. 7 Feet					5	36	5	36
Sewer Const. Over 7 Feet					5	101	5	101
Shaft Sinking					2	5	2	5
Shingle Mills			1	12			1	12
Smelters	2	3,572					2	3,572
Soap Factory					1	12	1	12
Stage Employees			2	19			2	19
Steam Heating	1	4	9	36	1	3	11	43
Steam Threshers					6	40	6	40
Stone Cutting					2	12	2	12
Stone Cutting at Yards			2	26			2	26
Steel Structures, Const. of					1	17	1	17
Store and Office Employees			45	1,176	4	58	49	1,234
Sugar Factory			1	273			1	273
Tanks Construction	1	5					1	5
Tank Mfg., Not Specified			1				1	
Teaming and Transfer	1	9	20	180	31	135	52	324
Tel. & Tel. Work, Op. & Me.	2	719	3	7	13	39	18	765
Textiles, Cloth Mfg., Etc.			2	1			2	1
Tile & Terra Cotta Mfg.			1	3	1	20	2	23
Trestles & Tun., Not Mining					1	7	1	7
Waterworks Construction			1	6	1	9	2	15
Well Drilling			8	81	18	84	26	165
Wood Saws, Operating			4	36			4	36
Public Corporations								
Counties					50	3,093	50	3,093
Cities					78	978	78	978
School Districts					51	219	51	219
State Institutions					15	380	15	380
Total	64	24,848	874	10,857	1,032	14,681	1,970	50,386

ACCIDENTS CAUSING TEMPORARY TOTAL DISABILITY.

(Classified as to Industry and Nature of Injury)

From July 1, 1915, to June 30, 1919.

PLAN NO. 1.

INDUSTRIES	NATURE OF INJURY											Total
	Fractures	Contusions & Bruises	Lacerations	Sprains	Dislocations	Metal Burns	Non-Metal Burns	Injured Eyes	Internal Injuries	Poisons & Infections	All Others	
Coal and Wood Yards, No Power					1			1				2
Coal and Wood Yards, With Power	1	2							1			4
Contractors and Builders			1									1
Coal Mining	178	421	291	101	19	4	19	33	7	22	47	1142
Concrete Structures			1									1
Electric Apparatus												
Installing, Inside				1								1
Electric Power	54	112	99	63	8		28	16	1	14	32	427
Elec. Ry., Operating	7	7	4	4			1	1	4	1	3	32
Explosives Mfg.	1	15	9	2								29
Flour Mills		5	4					2		1	3	15
Foundries	2	1	1	1				1				6
Grain Elev. & Breweries..	1	1		1							1	4
Gas Works, Operating...	1	4	2					1				8
Ice Harvesting			1		1							2
Laundries		2		1		2	1				1	7
Logging	51	150	114	56	9		4	6	2	12	28	432
Laying Water Mains.....		2	1									3
Machine Shops	1							1				1
Machinery Installing			1		2							4
Milling Ore	8	37	17	17			3	4	1	3	6	96
Mining, Not Coal	888	4387	5015	742	47	8	60	350	15	234	245	11991
Mach. & Safes Moving...	1								1	2	1	5
Plumbing, Inside								1				1
Planing Mills	8	4	7	1	1						1	22
Printing and Publishing...	2	2	4						1		2	11
Quarries		3						1				4
Railway Construction	1	1	2									4
Smelters	232	624	417	200	29	124	98	117	11	45	84	1981
Saw Mills	36	97	83	26	3		5	8	2	5	7	272
Teaming and Transfer		1										1
Tel. & Tel. Construction..		2		3				1				6
Telephone and Telegraph												
Oper. and Maintenance..	12	66	26	53	3	1	5	7		5	9	187
Waterworks Construction, Not Specified	1	7	4	6			1	1			2	22
Total	1486	5953	6104	1278	123	139	225	552	46	346	472	16724

ACCIDENTS CAUSING TEMPORARY TOTAL DISABILITY—(Continued).

(Classified as to Industry and Nature of Injury)

From July 1, 1915, to June 30, 1919.

PLAN NO. 2.

INDUSTRIES	NATURE OF INJURY											Total
	Fractures	Contusions & Bruises	Lacerations	Sprains	Dislocations	Metal Burns	Non-Metal Burns	Injured Eyes	Internal Injuries	Poisons & Infections	All Others	
Blacksmith Shops	2	2	3	1				1	1			10
Bridge Construction	2		4	5	1		1					13
Brick Work Construction	2	4	8	4	1			1			1	21
Brick Manufacturing	2	8	5	3		1	1					20
Boot and Shoe Mfg.		1										1
Coal and Wood Yards, No Power	20	26	25	19	3				1	4	6	104
Coal and Wood Yards, With Power	13	58	23	16	3		1	8	1	4	2	129
Candy and Cracker Mfg.		11	15	5			3		1	4	3	41
Creameries	6	21	8	6	1		3	1	1	3	7	57
Concrete Laying			1									1
Cabinet Making	1		3					1		3		8
Cement Manufacturing	10	9	12	4			6			2		43
Canals, Building		1	1	1			1				2	6
Carpenters and Builders	37	108	133	42	8		5	17	4	24	26	404
Cellar Excavations		1		1					1			3
Concrete Structures	6	5	4	2	1					1	2	21
Dams Construction	1	1	2	2			1			1		7
Electrical Power		1	3	1				1			1	7
Electric Railways	1		6				2			1		10
Electric Apparatus In- stalling, Outside			1	1						1		3
Excavations	5	9	3	2			1	2			5	27
Foundries	6	28	35	5		1	8	13	3	10	7	116
Flour Mills	16	36	57	18	5		2	5	1	11	11	162
Food Stuffs, Working in	1	2	4				1			1		9
Garages, Without Power	5	2	6	1			2	8		2	1	27
Garages, With Power	23	21	50	10	3		8	17	2	11	10	155
Grain Elev. & Breweries	23	29	72	27	3		7	2		6	5	174
Glass Setting		3	4									7
Gas and Water Works		5	6	2			1	1		1	2	18
Gravel Pits	1	3	3			1				1		9
Grain Elevators, Const.	7	4	2	2	1					4	2	22
Galv. Tin & Iron Works	2	1	2	1					1	1		8
Ice Harvesting	17	39	26	18	2				2	1	7	112
Installing Furnaces	1	2										3
Imp. and Mach. Mfg.		1										1
Lathing and Plastering		2		1								3
Laundries	10	33	31	11	1	4	42	3		6	9	150
Logging	22	32	43	22	1		1	2	1	7	3	134
Moving Pictures		2	2									4
Meat Markets			7	3						1		13
Mantel Erecting		1										1
Machine Shops	3	6	6	2			2	2	1	3	1	26
Mattress Manufacturing		1	2									3
Machinery Installing	1	5	4	2				1		1	2	16
Millwrighting		1										1
Milling Ore	1	12	3	3		1	2			1	1	24
Coal Mining	14	46	18	8	3			3	1	6	3	102
Mining, Not Coal	139	1153	1275	280	21	3	50	114	6	56	67	3164
Marble Works		1										1
Machinery Moving			1	1								2
Meat Canneries	2	1	4				1			1		9
Printing and Publishing	4	18	30	1		1	3			1	2	60
Paper Hanging			1									1
Painting, Interior	2	1	2			1						6
Painting, Exterior	4	2	6	3					1	1	1	18
Paving, Asphalt	1			1								2
Plumbing	5	18	21	7	1	2	5	2		2	1	64
Planing Mills	1	6	12					2			2	21
Quarries	1	7	4	1			1	2				18
Road and Street Work		4	3	1				1		1	1	11
Railway Construction, No Blasting	4	5	1	2				1				13

ACCIDENTS CAUSING TEMPORARY TOTAL DISABILITY—(Continued).
(Classified as to Industry and Nature of Injury)

From July 1, 1915, to June 30, 1919.

PLAN NO. 2.

INDUSTRIES	NATURE OF INJURY											
	Fractures	Contusions & Bruises	Lacerations	Sprains	Dislocations	Metal Burns	Non-Metal Burns	Injured Eyes	Internal Injuries	Poisons & Infections	All Others	Total
Railway Construction, With Blasting	21	76	73	20	3		3	5	1	6	1	209
Roof Work				1			3					4
Steam Bakery	2	7	7				1			1	1	19
Soap Factories	1							1				2
Stone Cutting			2									2
Sugar Factories	31	107	58	45	1	1	45	15	1	29	11	344
Steam Heating		1										1
Slaughtering	2	1	17	2	1			1	1	3		28
Sash and Door Factories..			2	1								3
Smelters	1	5				1						7
Saw Mills	16	24	16	7	2		1	2	1	3	1	73
Steam Threshers	1	4	2	1			1			1		10
Shingle Mills	1		2									3
Stone Work			1									1
Steel Structures	1	2	1		1							5
Textile Manufacturing	2		3									5
Teaming and Transfer	20	53	17	15	4				1	3	5	118
Tile and Terra Cotta Mfg.	1	4	9	2			2	1				20
Telephone & Telegraph				1			1				1	3
Tin and Metal Stamping..		2	4				1					7
Tank and Tower Const'n..	1		1					1		1		4
Well Drilling	1		2	1			1					5
Non-hazardous			1									1
Electrical Apparatus, In-												
stalling, Inside	1	6	2	1	1		2	1	1	1	1	17
Store & Office Employees ..			1								1	2
Total	527	2093	2224	645	72	17	221	236	34	232	218	6519

INDUSTRIAL ACCIDENT BOARD

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ACCIDENTS CAUSING TEMPORARY TOTAL DISABILITY—(Continued).

(Classified as to Industry and Nature of Injury)

From July 1, 1915, to June 30, 1919.

PLAN NO. 3.

INDUSTRIES	NATURE OF INJURY										Total	
	Fractures	Contusions & Bruises	Lacerations	Sprains	Dislocations	Metal Burns	Non-Metal Burns	Injured Eyes	Internal Injuries	Poisons & Infections		All Others
Saw Mills	10	23	24	6	2	.....	1	1	1	4	2	74
Steam Threshers .....	.....	.....	1	.....	.....	.....	.....	1	.....	.....	.....	1
Sewer C'nst., Under 7 Ft.	2	2	2	1	.....	.....	.....	1	.....	.....	.....	8
Stone Work .....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	1
Sewer Const., Over 7 Ft.	1	5	.....	.....	.....	.....	.....	1	.....	.....	.....	7
Teaming and Transfer.....	10	7	4	11	1	.....	.....	1	.....	2	4	40
Telephone and Telegraph..	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	1
Tunnel Work	1	6	10	2	.....	.....	.....	.....	.....	.....	1	20
Well Drilling	1	.....	3	.....	.....	.....	.....	.....	.....	.....	1	5
Waterworks, Operating....	7	6	3	4	1	.....	3	1	.....	.....	.....	27
Waterworks, Construction	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1
Non-hazardous	1	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	2
Office and Store.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	1
Total	314	574	488	192	31	3	55	48	15	63	82	1865

ACCIDENTS CAUSING TEMPORARY TOTAL DISABILITY—(Continued).
 (Classified as to Industry and Nature of Injury)

From July 1, 1915, to June 30, 1919.

ALL PLANS.

INDUSTRIES	NATURE OF INJURY										Total	
	Fractures	Contusions & Bruises	Lacerations	Sprains	Dislocations	Metal Burns	Non-Metal Burns	Injured Eyes	Internal Injuries	Poisons & Infections		All Others
Blacksmith Shops	2	3	3	1	.....	.....	.....	1	1	.....	.....	11
Bridge Construction	15	17	21	9	3	.....	2	.....	.....	2	3	72
Brick Work Construction	4	7	8	4	1	.....	.....	1	.....	.....	1	26
Brick Manufacturing	3	9	7	3	.....	1	2	.....	.....	.....	.....	25
Boot and Shoe Mfg. ....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	1
Butcher Shops, Slaught'g .....	.....	1	.....	.....	.....	.....	1	.....	.....	.....	.....	2
Butcher Shops, No Slaughtering .....	.....	.....	3	1	.....	.....	.....	.....	.....	.....	.....	4
Coal and Wood Yards, No Power	20	26	25	19	4	.....	.....	1	1	4	6	106
Coal and Wood Yards, With Power	14	60	23	16	3	.....	1	8	2	4	2	133
Contractors and Builders	60	161	192	63	10	.....	10	20	4	32	31	583
Concrete Structures	8	9	13	3	1	.....	1	.....	.....	2	5	42
Creameries	7	21	8	6	1	.....	4	1	1	3	7	59
Cabinet Making	1	.....	6	.....	.....	.....	.....	1	.....	3	.....	11
Clay Products	1	.....	.....	.....	.....	.....	1	1	1	.....	.....	3
Cement Manufacturing	13	10	13	4	.....	.....	7	.....	.....	2	.....	49
Other Concrete Work .....	.....	1	.....	.....	.....	.....	.....	.....	.....	1	.....	2
Candy and Cracker Mfg. ....	.....	11	15	5	.....	.....	3	.....	.....	4	3	41
Concrete Laying .....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	1
Canals, Building .....	.....	1	1	1	.....	.....	1	.....	.....	.....	2	6
Cellar Excavations .....	.....	1	.....	1	.....	.....	.....	.....	1	.....	.....	3
Dams and Reservoirs	2	1	5	3	.....	.....	.....	.....	.....	1	.....	12
Electric Apparatus Installing, Inside	2	6	2	2	1	.....	3	1	1	1	1	20
Electric Power	57	115	107	67	8	.....	28	18	1	14	33	448
Elec. Railway Operating	8	7	10	4	.....	.....	3	1	4	.....	3	42
Explosives Manufacturing	1	15	9	2	.....	.....	.....	.....	.....	2	.....	29
Electric Apparatus Installing, Outside .....	.....	.....	1	1	.....	.....	.....	.....	.....	1	.....	3
Excavations	6	13	6	5	1	.....	1	2	.....	.....	5	40
Flour Mills	19	43	66	18	5	.....	4	7	1	12	14	189
Foundries	8	29	36	6	.....	1	8	14	3	10	7	122
Food Stuffs, Working in	1	2	4	.....	.....	.....	1	.....	.....	1	.....	9
Firemen	2	4	2	5	.....	.....	.....	.....	.....	1	.....	14
Grain Elev. & Breweries	25	33	73	28	3	.....	7	3	.....	8	6	186
Gas & Waterworks, Oper.	8	15	11	6	1	.....	4	3	.....	1	4	53
Garages, Without Power	7	2	6	1	.....	.....	2	8	.....	2	2	30
Garages, With Power	27	21	52	10	3	1	9	17	2	13	10	165
Glass Setting .....	.....	3	4	.....	.....	.....	.....	.....	.....	.....	.....	7
Gravel Pits	3	3	4	.....	.....	1	.....	.....	.....	1	.....	12
Grain Elev., Construction	7	4	2	2	1	.....	.....	.....	.....	4	2	22
Galv. Tin and Iron Works	2	2	2	1	.....	.....	.....	.....	1	1	.....	9
Garbage Works	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	2
Gravel Hauling .....	.....	1	1	1	.....	.....	.....	.....	.....	.....	.....	3
Heating Systems, Instal'g .....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	1
Heating, Steam	1	2	4	5	.....	.....	1	1	.....	.....	.....	14
House Wrecking .....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	1
Ice Harvesting	18	46	31	22	3	.....	.....	.....	3	1	8	132
Installing Furnaces	1	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	3
Implement & Mach. Mfg. ....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	1
Iron and Steel Frames .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Construction	2	1	1	.....	.....	.....	.....	3	.....	6	.....	4
Laundries	10	36	33	12	1	7	47	.....	.....	.....	10	165
Logging	101	235	190	99	12	.....	5	11	3	22	47	725
Laying Water Mains	1	2	1	.....	.....	.....	.....	.....	.....	.....	.....	4
Lumber Yds., No Power	1	.....	2	.....	.....	.....	.....	.....	1	1	.....	5
Lumber Yds., With Power	1	2	1	1	1	.....	.....	.....	.....	.....	.....	6
Lathing and Plastering	1	3	.....	2	.....	.....	1	.....	.....	.....	.....	7
Lime Kilns	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	2
Machine Shops	3	7	6	2	.....	.....	2	3	1	3	1	28
Machinery Installing	3	5	7	2	2	.....	.....	1	.....	1	2	23
Milling Ore	10	50	24	20	.....	1	6	4	1	4	9	129
Mining Coal	238	543	356	128	23	5	27	42	11	34	56	1463
Mining, Not Coal	1082	5682	6387	1056	76	11	117	478	24	311	330	15554

ACCIDENTS CAUSING TEMPORARY TOTAL DISABILITY—(Continued).

(Classified as to Industry and Nature of Injury)

From July 1, 1915, to June 30, 1919.

ALL PLANS.

INDUSTRIES	NATURE OF INJURY											Total
	Fractures	Contusions & Bruises	Lacerations	Sprains	Dislocations	Metal Burns	Non-Metal Burns	Injured Eyes	Internal Injuries	Poisons & Infections	All Others	
Mach'y and Safes Moving	2	3	1	3	1				1	2	1	14
Moving Pictures		2	2									4
Meat Markets		2	1	3						1		13
Mantel Erecting		1										1
Mattress Manufacturing		1	2									3
Millwrighting		1										1
Marble Works		1										1
Meat Canneries	2	1	4				1			1		9
Ornamental Metal Work		1										1
Plumbing, Inside								1				1
Planing Mills	9	11	23	1	2		1				4	51
Printing and Publishing	8	25	39	3	1	1	3		1	1	4	86
Paper Hanging			1									1
Painting, Interior	3	3	3			1						9
Painting, Exterior	4	3	6	3					1	1	1	18
Paving, Asphalt	3	3	3	3			3			2	1	20
Plumbing	7	19	23	9	1	2	5		1	2	1	72
Quarries	1	10	4	1			1	3	1		2	23
Railway Construction, Without Blasting	8	17	10	6			2	2	1		5	51
Railway Construction, With Blasting	44	152	125	40	7		8	13	2	8	3	402
Road and Street Work, No Blasting	32	17	31	10	1		1	4	1	2	6	105
Road and Street Work, With Blasting	2		1									3
Roof Work				1			3					4
Smelters	233	629	417	200	29	125	93	117	11	45	84	1988
Saw Mills	62	144	123	39	7		7	11	4	12	10	419
Steam Bakeries	2	8	10				2			1	1	24
Soap Factories	1	1	1					1				4
Stone Cutting			2								1	3
Sugar Factories	32	107	58	45	1	1	45	15	1	29	11	345
Slaughter Houses	1											1
Slaughtering	2	1	17	2	1			1	1	3		28
Sash and Door Factories			3	1								4
Steam Threshers	1	4	3	1			1			1		11
Shingle Mills	1		2									3
Stone Work			2									2
Steel Structures	1	3	1		1							5
Sewer Const., Under 7 Ft.	2	2	2	1				1				8
Sewer Const., Over 7 Ft.	1	5						1				7
Sidewalks	4	16	17	3	2		1	1		2	2	48
Stone Crushing			1									1
Teaming and Transfer	30	61	21	26	5			1	1	5	9	159
Telephone and Telegraph Construction		2		3				1				6
Telephone and Telegraph Oper. and Maintenance	12	67	26	54	3	1	6	7		5	10	191
Textile Manufacturing	2		3									5
Tile & Terra Cotta Mfg.	1	4	9	2			2	1			1	20
Tin and Metal Stamping		2	4				1					7
Tank and Power Const.	1		1					1		1		4
Tunnel Work	1	6	10	2							1	20
Waterworks Construction	1	7	4	6			1	1			2	22
Waterworks Operating												
Well Drilling	2		5	1			1				1	10
Non-hazardous	1		2									3
Office and Store			1							1	1	3
Total	2327	8620	8816	2115	226	159	501	836	95	641	772	25108

ACCIDENTS CAUSING PERMANENT PARTIAL DISABILITY.

(Classified as to Industry and Part of Body Affected)

From July 1, 1915, to June 30, 1919.

PLAN NO. 1.

INDUSTRIES	Thumbs	Fingers	Thumbs & Fingers	Ankles	Hands	Arms	Toes	Feet	Legs	Eyes	Total
Electric Power	2	5	.....	1	.....	1	.....	.....	.....	5	14
Electric Railways, Operating.....	1	1	.....	.....	.....	.....	.....	.....	.....	.....	2
Explosives Manufacturing .....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	1
Laundries .....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	1
Logging	1	1	.....	.....	.....	.....	.....	.....	.....	.....	2
Mining Coal	5	31	.....	.....	1	1	2	1	1	.....	10
Mining, Not Coal.....	13	12	.....	.....	2	6	17	3	9	16	54
Milling Ore .....	.....	3	.....	.....	.....	.....	.....	1	.....	.....	3
Printing and Publishing .....	.....	1	.....	.....	1	.....	.....	.....	.....	.....	1
Planing Mills .....	.....	1	.....	.....	1	.....	.....	.....	.....	.....	2
Packing Houses .....	.....	3	.....	.....	.....	.....	.....	.....	.....	.....	3
Smelters	9	33	1	.....	5	3	6	1	3	11	72
Saw Mills	2	8	1	.....	1	.....	1	.....	1	.....	14
Total	33	212	2	1	10	13	30	8	14	41	364

ACCIDENTS CAUSING PERMANENT PARTIAL DISABILITY.

(Classified as to Industry and Part of Body Affected)

From July 1, 1915, to June 30, 1919.

PLAN NO. 2.

INDUSTRIES	Thumbs	Fingers	Thumbs & Fingers	Ankles	Hands	Arms	Toes	Feet	Legs	Eyes	Total
Bakeries	1	.....	.....	.....	.....	.....	.....	.....	.....	1
Brick Manufacturing	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	1
Bridge Building	1	.....	.....	.....	.....	.....	.....	.....	.....	1
Carriage Works	1	.....	.....	.....	.....	.....	.....	.....	.....	1
Creameries	3	.....	.....	.....	.....	.....	.....	.....	.....	3
Coal & Wood Yds., With Power	3	.....	.....	.....	.....	.....	.....	.....	.....	3
Coal and Wood Yards, With- out Power	2	.....	.....	.....	.....	.....	.....	.....	.....	2
Cabinet Works	1	.....	.....	.....	.....	.....	.....	.....	.....	1
Cement Manufacturing	2	.....	.....	.....	.....	.....	.....	.....	2	4
Carpenters and Builders.....	4	3	.....	.....	.....	.....	.....	.....	.....	1	13
Concrete Structures	2	.....	.....	.....	.....	.....	.....	.....	.....	2
Excavations	1	.....	.....	.....	.....	.....	1	.....	.....	.....	2
Flour Mills	4	.....	.....	.....	.....	.....	.....	1	.....	5
Garages, With Power.....	5	.....	.....	.....	.....	.....	.....	.....	.....	5
Grain Elevators and Breweries..	1	.....	.....	.....	.....	.....	.....	1	.....	2
Ice Harvesting	1	.....	.....	.....	.....	.....	.....	.....	.....	1
Laundries	1	.....	.....	.....	.....	.....	.....	.....	.....	1
Logging	1	3	.....	.....	.....	.....	2	.....	.....	.....	6
Moving Pictures	1	.....	1
Machine Shops	2	.....	.....	.....	.....	.....	.....	.....	1	3
Milling Ore	1	.....	.....	.....	.....	.....	1
Mining Coal	1	.....	.....	.....	.....	.....	.....	.....	1	2
Mining, Not Coal	1	34	1	.....	1	3	4	1	3	6	54
Machinery and Safes Moving.....	1	.....	.....	.....	1
Printing and Publishing.....	3	.....	.....	.....	.....	.....	.....	.....	.....	3
Planing Mills	4	.....	.....	.....	.....	.....	.....	.....	.....	4
Refrigerator Plants	4	.....	.....	.....	.....	1	.....	.....	.....	5
Railway Construction, Blasting	6	.....	.....	1	.....	1	.....	.....	1	9
Sugar Factories	3	.....	.....	.....	.....	.....	.....	.....	.....	3
Slaughtering	2	.....	.....	.....	.....	.....	.....	.....	2	4
Sash and Door Factories.....	2	.....	.....	.....	.....	.....	.....	.....	.....	2
Saw Mills	2	.....	.....	.....	.....	.....	.....	.....	.....	2
Steam Threshers	1	.....	.....	.....	.....	1
Shingle Mills	1	.....	.....	.....	.....	.....	.....	.....	.....	1
Teaming and Transfer.....	2	.....	.....	.....	.....	.....	.....	.....	.....	2
Tank and Tower Construction...	1	1
Total	8	105	1	.....	3	4	10	1	5	16	153

ACCIDENTS CAUSING PERMANENT PARTIAL DISABILITY—(Continued).

(Classified as to Industry and Part of Body Affected)

From July 1, 1915, to June 30, 1919.

PLAN NO. 3.

INDUSTRIES	Thumbs	Fingers	Thumbs & Fingers	Ankles	Hands	Arms	Toes	Feet	Legs	Eyes	Total
Bridge Building	2	1	1	1	1	1	1	1	1	1	3
Bakeries, Steam	1	1	1	1	1	1	1	1	1	1	1
Cabinet Making	1	1	1	1	1	1	1	1	1	1	1
Cement Manufacturing	1	1	1	1	1	1	1	1	1	1	1
Contractors and Builders.....	1	2	2	1	1	1	1	1	1	1	4
Concrete Structures	1	1	1	1	1	1	1	1	1	1	1
Coal Docks	1	1	1	1	1	1	1	1	1	1	1
Flour Mills	2	1	1	1	1	1	1	1	1	1	3
Grain Elevators and Breweries..	1	1	1	1	1	1	1	1	1	1	1
Logging	1	5	3	1	1	1	1	1	1	1	7
Mining, Coal	1	3	3	1	1	1	1	1	1	1	11
Mining, Not Coal	1	10	8	1	1	1	1	1	1	1	18
Planing Mills	1	2	1	1	1	1	1	1	1	1	4
Quarries	1	1	1	1	1	1	1	1	1	1	1
Road Work, No Blasting.....	1	2	2	1	1	1	1	1	1	1	6
Road Work, With Blasting.....	1	1	1	1	1	1	1	1	1	1	2
Railway Const, No Blasting.....	1	2	1	1	1	1	1	1	1	1	1
Railway Const., With Blasting..	1	2	1	1	1	1	1	1	1	1	5
Street Paving	1	1	1	1	1	1	1	1	1	1	4
Steam Heating	1	1	1	1	1	1	1	1	1	1	2
Saw Mills	2	4	1	1	1	1	1	1	1	1	8
Sewer Const., Under 7 Feet.....	1	1	1	1	1	1	1	1	1	1	1
Steel Structures	1	1	1	1	1	1	1	1	1	1	1
Teaming and Transfer.....	1	1	1	1	1	1	1	1	1	1	2
Tunnel Work	1	1	1	1	1	1	1	1	1	1	1
Well Drilling	1	1	1	1	1	1	1	1	1	1	1
Garages, With Power.....	1	1	1	1	1	1	1	1	1	1	1
Total	11	53	1	4	1	4	4	3	15	92	

ACCIDENTS CAUSING PERMANENT PARTIAL DISABILITY—(Continued).

(Classified as to Industry and Part of Body Affected)

From July 1, 1915, to June 30, 1919.

ALL PLANS.

INDUSTRIES	Thumbs	Fingers	Thumbs & Fingers	Ankles	Hands	Arms	Toes	Feet	Legs	Eyes	Total
Bakeries		2									2
Brick Manufacturing	1										1
Bridge Building		3									3
Cabinet Making											2
Cement Manufacturing											5
Contractors and Builders	5	10									17
Concrete Structures		3									3
Coal Docks	1	3									4
Carriage Works		1									1
Creameries		3									3
Coal and Wood Yards, With- out Power		2									2
Excavations	1						1				2
Electric Power	2	5		1		1				5	14
Electric Railway, Operating	1	1									2
Explosives, Manufacturing		1									1
Flour Mills		6			1					1	8
Garages, With Power		5									5
Grain Elevators and Breweries		2							1		3
Ice Harvesting		1									1
Laundries		2									2
Logging	3	12				1	4	1	1	1	23
Mining, Coal	5	40			1	2	4	2		13	67
Mining, Not Coal	15	166	1		4	9	23	4	13	25	260
Milling Ore		2			1			1			4
Moving Pictures									1		1
Machine Shops		2								1	3
Machinery and Safes Moving							1				1
Printing and Publishing		4									4
Planing Mills	1	7			2						10
Packing Houses		2									2
Quarries		1					1				2
Refrigerator Plants		4							1		5
Railway Const., Blasting	1	8			1		2				14
Railway Const., No Blasting									1		1
Road Work, No Blasting	1	2					1				4
Road Work, With Blasting		1								1	2
Smelters	9	33	1		5	3	6	1	3	11	72
Saw Mills	4	14	2		2		1		1		24
Sugar Factories		3									3
Slaughtering		2								2	4
Sash and Door Factories		2									2
Steam Threshers						1					1
Shingle Mills		1									1
Street Paving	1	1				1				1	4
Steam Heating	1	1									2
Sewer Const., Under 7 Feet		1									1
Steel Structures										1	1
Teaming and Transfer		3							1		4
Tank and Tower Construction										1	1
Tunnel Work		1									1
Well Drilling		1									1
Garages, With Power		1									1
Total	52	370	4	1	17	18	44	9	22	72	609

FATAL ACCIDENTS CLASSIFIED AS TO INDUSTRY.

From July 1, 1915, to June 30, 1919.

PLAN NO. 1.

Electric Power	20
Electric Railway Operating	2
Logging	13
Mining, Coal	50
Mining, not Coal	388
Milling Ore	1
Saw Mills	6
Smelting	51
Telephone and Telegraph	2
Water Works Construction	1
Printing and Publishing	1
	<hr/>
	535

PLAN NO. 2.

Brick Work Construction	2
Butcher Shops	1
Cement Manufacturing	8
Coal Docks	3
Contractors and Builders	1
Creameries	1
Garages With Power	1
Grain Elevator Construction	1
Grain Elevators and Breweries	2
Heating Plants	1
Ice Harvesting	1
Lime Kilns	1
Logging	2
Lumber, Wood and Coal Yards, No Power	1
Milling, Ore	1
Mining, Coal	8
Mining, Not Coal	44
Railroad Construction, No Blasting	5
Road Work, Blasting	1
Smelters	3
Sugar Factories	2
Transfer and Teaming	1
Well Drilling	2
	<hr/>

PLAN NO. 3.

Bridge Building	5
Cement Manufacturing	1
Contractors and Builders	2
Water Mains Laying	1
Logging	8
Mining, Coal	11
Mining, Not Coal	16
Milling Ore	1
Plumbing	1
Railway Construction, No Blasting	6
Road Work, No Blasting	1
Road Work, With Blasting	6
Saw Mills	1
	<hr/>
	60

ALL PLANS.

Bridge Building	5
Brick Work Construction	1
Butcher Shops	1
Cement Manufacturing	11
Coal Docks	3
Contractors and Buildings	2
Creameries	1
Electric Power	20
Electric Railway Operating	4
Garages With Power	1
Grain Elevator Construction	1
Grain Elevators and Breweries	2
Heating Plants	1
Ice Harvesting	1
Logging	22
Lime Kilns	1
Lumber, Wood and Coal Yards, No Power.....	1
Mining, Coal	67
Mining, Not Coal	448
Milling, Ore	4
Water Mains, Laying	1
Railroad Construction, No Blasting	3
Railroad Construction, Blasting	8
Road Work, Blasting	1
Road Work, No Blasting	6
Saw Mills	8
Smelters	53
Sugar Factories	2
Telephone and Telegraph	2
Water Works Construction	1

Transfer and Teaming	1
Well Drilling	1
Brick Manufacturing	1
Plumbing	1
Gravel Pits	1
Printing and Publishing	1

688

PERMANENT TOTAL ACCIDENTS CLASSIFIED AS TO INDUSTRY AND NATURE.

From July 1, 1915, to June 30, 1919.

PLAN NO. 1.

Nature of Accident	No. of Accident	Industries.
Paralysis	8	Mining, not coal & electric power.
Total Blindness	3	Mining, not coal.
Back Broken	1	Mining, not coal.
	<hr/> 12	

PLAN NO. 2.

Total Blindness	3	Mining, not coal & bridge building.
Back Broken	1	Mining, not coal.
	<hr/> 4	

ALL PLANS.

Back Broken	2	Mining, not coal.
Paralysis	8	Mining, not coal & electric power.
Total Blindness	6	Mining, not coal & bridge building.
	<hr/> 16	

ACCIDENTS CLASSIFIED AS TO DEGREE OF DISABILITY.

From July 1, 1915, to June 30, 1919.

PLAN NO. 1.

Degree of Disability	No. of Accidents
Temporary Total	16,724
Permanent Partial	364
Permanent Total	12
Fatal	535
	17,635

PLAN NO. 2.

Temporary Total	6,519
Permanent Partial	153
Permanent Total	4
Fatal	93
	6,769

PLAN NO. 3.

Temporary Total	1,865
Permanent Partial	92
Fatal	60
	2,017

ALL PLANS BY DEGREE OF DISABILITY AND YEARS.

	First Year	Second Year	Third Year	Fourth Year	All Told
Temporary Total..	6574	7824	5509	5201	25,108
Permanent Partial	89	184	185	151	609
Permanent Total..	2	10	3	1	16
Fatal	136	307	123	122	688
	6801	8325	5820	5475	26,421
Total					

TIME AND WAGES LOST, CLASSIFIED AS TO INDUSTRY.

July 1st, 1915 to June 30th, 1919.

PLAN NO. 1.

Industries.	Days Lost	Amount
Coal Mines	17,788	\$ 82,735.61
Electric Plants, Railway & Water Works	6,520	25,554.99
Flour Mills and Grain Elevators	188	641.25
Laundries, Dye and Cleaning Works.....	182	433.10
Logging and Lumber Operations	13,175	53,920.51
Mining, not Coal	111,960	498,585.03
Smelters	30,435	125,407.35
Telephone and Telegraph	2,632	10,721.54
All Others	822	3,839.33
	<hr/> 183,702	<hr/> \$ 801,838.71

PLAN NO. 2.

Coal Mines	2,318	\$ 9,018.97
Contractors and Builders	7,917	32,627.53
Flour Mills and Grain Elevators	2,980	12,088.33
Laundries, Dye and Cleaning Works.....	1,256	3,720.20
Logging and Lumber Operations	1,974	6,637.43
Machine Shops, Foundries and Garages	2,545	9,845.50
Mining, not Coal	18,218	64,229.00
Printing and Publishing	865	2,694.38
Sugar Factories	1,734	5,376.38
All Others	20,434	73,532.91
	<hr/> 60,241	<hr/> \$ 219,770.63

PLAN NO. 3.

Coal Mining	1,858	\$ 9,851.33
Contractors and Builders	3,883	15,625.51
Electric Plants and Water Works.....	15	87.00
Flour Mills and Grain Elevators.....	163	631.35
Logging and Lumber Operations	1,221	3,717.46
Machine Shops, Foundries and Garages	19	39.52
Mining, not Coal	2,489	10,878.84
All Others	3,147	12,644.97
	<hr/> 12,795	<hr/> \$ 53,475.98

TIME AND WAGES LOST, CLASSIFIED AS TO INDUSTRY.
(Continued)

ALL PLANS.

Coal Mining	21,964	\$ 101,605.91
Contractors and Builders	11,800	48,253.04
Electric Plants, Railway & Water Works	6,535	25,641.99
Flour Mills and Grain Elevators	3,331	13,360.93
Laundries, Dye and Cleaning Works.....	1,438	4,153.30
Logging and Lumber Operations	16,370	64,275.40
Machine Shops, Foundries and Garages	2,564	9,885.02
Mining, not Coal	132,667	573,692.87
Printing and Publishing	865	2,694.38
Smelters	30,435	125,407.35
Sugar Factories	1,734	5,376.38
Telephone and Telegraph	2,632	10,721.54
All Others	24,403	90,017.21
	<hr/>	<hr/>
	256,738	\$1,075,085.32

This exhibit shows that the average daily wage lost to injured employees is \$4.19. The slogan "Safety First" can well be applied here.

COMPENSATION PAYMENTS CLASSIFIED AS TO INDUSTRY.

From July 1, 1915, to June 30, 1919.

PLAN NO. 1.

INDUSTRIES	Payments Not Fatal	Fatal	Medical	Hospital	Burial	Total
Contractors and Builders..\$	147.50					\$ 147.50
Creameries	37.50					37.50
Electric Power	37,366.18	\$ 33,998.70	\$ 615.90	\$ 151.60	\$ 1,689.36	73,821.74
Electric Systems	306.45		100.00			406.45
Elec. Railway, Operating..	3,097.55	6,760.00	110.00		150.00	10,117.55
Explosives Manufacturing	136.35		327.65	18.00	150.00	632.00
Flour Mills	114.54		46.04			160.58
Foundries	153.31		16.00			169.31
Grain Elev. & Breweries	110.00		215.00	206.60		531.60
Ice Harvesting	69.00					69.00
Laundries	110.60		133.00			243.60
Logging	18,536.84	6,808.50	383.20	102.95	900.00	26,731.49
Mining, Coal	65,208.23	67,275.94	1,201.65	1,487.58	3,340.90	138,514.30
Mining, Not Coal.....	269,801.19	593,595.80	332.30	100.00	30,075.00	893,904.29
Machinery Installing	185.60		10.00			195.60
Milling Ore	3,368.19	90.00	1,395.90	45.00	75.00	4,974.09
Printing and Publishing...	2,376.85		149.50			2,526.35
Plumbing			7.50			7.50
Planing Mills	1,011.67					1,011.67
Railway Construction, No Blasting	121.65					121.65
Smelters	87,892.15	108,376.80	442.19		1,350.00	198,061.14
Saw Mills	14,567.91	2,963.75	798.00	188.17	150.00	18,667.83
Steam Threshers	291.00		19.00			310.00
Waterworks, Operating...	20.00					20.00
Waterworks Construction	10.50	443.04			75.00	528.54
Telephone and Telegraph..	9,317.52	997.03	4,909.87	2,436.16	150.00	17,810.58
Total	\$514,358.28	\$821,309.56	\$11,212.70	\$4,736.06	\$38,105.26	\$1,389,721.84

INDUSTRIAL ACCIDENT BOARD

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COMPENSATION PAYMENTS CLASSIFIED AS TO INDUSTRY—(Continued).

From July 1, 1915, to June 30, 1919.

PLAN NO. 2.

INDUSTRIES	Payments Not Fatal	Fatal	Medical	Hospital	Burial	Total
Bakeries	\$ 236.67		\$ 182.50	\$ 23.00		\$ 442.17
Boot and Shoe Mfg.			25.00			25.00
Blacksmith Shops	245.69		177.50	24.25		447.44
Brick Manufacturing	623.75		505.50	29.00		1,158.25
Building Canals	80.00		37.00			117.00
Brick Work Construction	470.24		176.00			646.24
Bridge Building	4,269.89	\$ 40.00	316.90	89.90		4,716.69
Coal and Wood Yards, No Power	1,673.23		1,313.75	81.50	\$ 75.00	3,143.48
Coal and Wood Yards, With Power	2,007.23	3,316.00	1,424.89	216.41	150.00	7,114.53
Candy and Cracker Mfg.	866.30		556.60	84.40		1,507.30
Creameries	3,054.10	350.00	1,046.19	171.16	150.00	4,771.45
Cheese Factories			25.00			25.00
Cabinet Making	163.34		111.50	14.00		288.84
Clay Products	772.30		125.00			897.30
Cement Manufacturing	4,994.87	9,510.00	172.80		600.00	15,277.67
Carpenters and Builders	16,990.31		5,713.95	628.20		23,332.46
Cellar Excavations	70.00		11.00			81.00
Concrete Structures	336.73		95.00	8.15		439.88
Concrete Work	879.64		169.00	16.50		1,065.14
Electric Apparatus Install- ing, Inside	170.00		220.00	18.00		408.00
Electric Power	4.50		53.75			58.25
Electric Railways, Oper.			14.00			14.00
Excavations	2,166.90		161.50	55.00		2,383.40
Food Stuffs, Working in	172.21		195.50			367.71
Flour Mills	1,291.89		1,751.14	266.75		3,309.78
Foundries	1,916.89		1,183.98	136.77		3,237.64
Furnaces, Installing	30.00		57.00	10.00		97.00
Electric Apparatus Install- ing, Outside	950.00		43.75			993.75
Garages, Without Power	355.96		407.00	45.00		807.96
Garages, With Power	2,079.67	1,800.00	2,396.90	14.00	75.00	6,365.57
Grain Elev. and Breweries	3,090.90	4,433.00	2,387.29	342.61	150.00	10,403.80
Glass Setting			102.00			102.00
Gravel Hauling	185.35		61.50	88.50		335.35
Gravel Pits	723.35		131.75			855.10
Heating Apparatus, Instal'g	595.00		130.00	25.00		750.00
Ice Harvesting	3,006.41		1,511.22	145.90		4,663.53
Iron and Tin Metal Stamp'g	144.33		116.72	50.28		311.33
Lathing and Plastering	121.66		51.50			173.16
Laundries	1,661.46		2,180.22	34.79		3,876.47
Lime Kilns			5.00		75.00	80.00
Logging	7,879.71		299.05	109.00	150.00	8,437.76
Moving Pictures	213.00		34.00	12.50		259.50
Meat Markets	30.00		115.00	17.50		162.50
Mantel Work			5.00			5.00
Machine Shops	1,033.53		395.50	23.90		1,352.93
Meat Canneries	229.25		121.00			350.25
Mattress Manufacturing	246.87		42.00	25.00		313.87
Machinery Installing	12.50		180.60			193.10
Milling Ore	1,782.55		33.00		150.00	1,965.55
Mining, Coal	10,343.35	16,113.24	431.80	53.55	600.00	27,541.94
Mining, Not Coal	63,195.19	49,405.78	2,043.38	316.95	2,850.00	117,741.30
Marble Work	65.00		32.00			97.00
Machinery Moving	195.75		22.50			218.25
Printing and Publishing	1,851.82		773.80	103.00		2,728.62
Paper Hanging			20.00			20.00
Paving, Asphalt			5.00			5.00
Plumbing	969.52		801.75	51.97		1,823.24
Planing Mills	958.74		300.00	10.00		1,268.74
Painting, Exterior	403.33		339.50	25.00		767.83
Quarries	138.08		167.22	29.28		334.58
Road Work	25.85	2,055.00	71.00	15.80	75.00	2,242.65
Reservoirs and Dams						
Construction	118.28		43.00			161.28
Railway Construction, No Blasting	690.65		264.58	74.07	150.00	1,179.30
Railway Construction, Logging	29.03		16.67	33.33		79.03
Railway Construction, Blasting	6,872.88	3,734.00	2,011.74	367.80	201.50	13,187.92
Roof Work	152.25		267.00	15.00		434.25
Soap Factories	20.00		32.00			52.00
Stone Cutting	1.65		10.00			11.65
Sugar Factories	4,087.61	1,080.00	2,179.21	131.40	75.00	7,553.22

COMPENSATION PAYMENTS CLASSIFIED AS TO INDUSTRY—(Continued).

From July 1, 1915, to June 30, 1919.

PLAN NO. 2.

INDUSTRIES	Payments Not Fatal	Fatal	Medical	Hospital	Burial	Total
Steam Heating		2,180.00	56.00		75.00	2,311.00
Slaughtering	2,571.02	3,414.00	621.95	57.05	75.00	6,739.02
Sash and Door Factories.....	58.35		80.45	13.55		152.35
Smelters		2,470.15	50.00		150.00	2,670.15
Saw Mills	3,148.68		341.15			3,489.83
Steam Threshers	507.14		118.12	39.63		664.89
Shingle Mills	39.00		12.00			51.00
Sewer Const., Under 7 Ft....			33.00			33.00
Sheet Metal Works.....	65.00		73.50			138.50
Stone Work	41.65		11.00			52.65
Steel Frames Construction..	41.45		34.50	25.00		100.95
Theater Stage Employees....			23.00			23.00
Textile Manufacturing	374.47		96.00	70.75		541.22
Teaming and Transfer.....	3,968.95	3,380.00	1,216.20	331.80	75.00	8,971.95
Telephone and Telegraph						
Operating	81.43		130.50			211.93
Tank and Tower Construc'n	534.29		142.50	11.50		688.29
Well Drilling	70.00	3,340.00	81.25		150.00	3,641.25
Waterworks Operating	183.94		211.10	9.00		404.04
Hot Flooring Composition						
Laying				50.00		50.00
Grain Elev. Construction...	515.00		413.50	26.35	75.00	1,029.85
Non-hazardous			3.00			3.00
Unclassified			69.48			69.48
Total	\$170,077.53	\$106,621.17	\$40,152.30	\$4,668.75	\$6,126.50	\$327,646.25

INDUSTRIAL ACCIDENT BOARD

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COMPENSATION PAYMENTS CLASSIFIED AS TO INDUSTRY—(Continued).

From July 1, 1915, to June 30, 1919.

PLAN NO. 3.

INDUSTRIES	Payments Not Fatal	Fatal	Medical and Hospital	Burial	Total
Bakeries	\$ 100.00		\$ 83.00		\$ 183.00
Butcher Shops	318.00		143.50		461.50
Blacksmiths			50.00		50.00
Brick Manufacturing	24.30		149.00		173.30
Brick Work Construction	871.00		105.50		976.50
Bridge Building	3,767.35	\$ 1,834.00	267.00	\$ 375.00	6,243.35
Lumber, Coal and Wood Yards, No Power	120.00		100.00		220.00
Lumber, Coal and Wood Yards, With Power	140.25		81.00		221.25
Creameries	520.00		50.00		570.00
Cabinet Making	353.35		133.00		486.35
Cement Manufacturing	384.55	51.45			436.00
Car Repairing, Railway	12.47				12.47
Contractors and Builders	6,371.24	3,392.00	2,691.70		12,454.94
Cellar Excavations	160.00		28.00	75.00	263.00
Concrete Structures	90.00				90.00
Cement Structures	113.65		57.15		170.80
Electric Apparatus Installing, Inside	158.60		102.00		260.60
Electric Power	541.16		363.00		904.16
Excavations	130.00		176.00		306.00
Firemen	119.75		290.35		410.10
Food Stuffs, Working in			7.00		7.00
Flour Mills	2,044.85		352.00		2,396.85
Garages, With Power	202.85		241.00		443.85
Grain Elevators and Breweries	2,270.67		259.00		2,529.67
Garbage Works	213.30		100.00		313.30
Gravel Hauling			7.00		7.00
Gravel Pits	43.35		31.50		74.85
Heating Systems, Installing			55.00		55.00
Incinerators and Crematories	1,557.30		49.50		1,606.80
Ice Harvesting	320.55		369.55		690.10
Iron and Tin Works			7.50		7.50
Iron and Steel Frames, Const'g			47.05		47.05
Laundries	55.00		154.00		209.00
Janitors and Engineers	109.10		134.50		243.60
Logging	10,414.82	375.00	422.70	525.00	11,737.52
Meat Canneries			10.00		10.00
Milling Ore	145.75	895.50	22.00	75.00	1,138.25
Mining, Coal	13,989.68	13,116.00	1,379.45	825.00	29,310.13
Mining, Not Coal	19,671.60	16,174.56	1,863.40	1,190.00	38,899.56
Machinery and Safes Moving	138.60		135.00		273.60
Printing and Publishing	273.80		269.00		542.80
Painting, Outside	25.00		13.35		38.35
Paving, Asphalt	722.28		277.50		999.78
Plumbing	219.26		223.50	75.00	517.76
Packing Plants	431.65		79.00		510.65
Planing Mills	295.44		241.15		536.59
Pile Driving				75.00	75.00
Quarries	42.00		41.50		83.50
Road Work, No Blasting	10,389.09	1,920.00	2,758.65	225.00	15,292.74
Road Work, With Blasting	243.50		122.00	150.00	515.50
Railway Construction, No Blasting	3,716.35	3,940.00	45.50	150.00	7,851.85
Railway Construction, With Blasting	2,357.50	1,470.80		75.00	3,903.30
Soap Factories	50.00		89.00		139.00
Street Work	4,047.37		1,353.85	75.00	5,476.22
Stone Crushing			7.00		7.00
Sash and Door Factories			19.00		19.00
Saw Mills	2,713.34	105.00	342.85	75.00	3,236.19
Steam Threshers	6.65		23.00		29.65
Sewer Construction, Under 7 Ft.	514.01		148.20		662.21
Sewer Construction, Over 7 Ft.	227.45	1,600.00	234.00		2,061.45
Steel Frames and Structures	1,044.00		50.00		1,094.00
Tunnel Work	1,684.60	420.30	47.15	75.00	2,227.05
Teaming and Transfer	1,466.48		644.50		2,110.98
Well Drilling	170.05		50.00		220.05
Waterworks, Operating	923.19		531.50		1,454.69
Waterworks, Construction	155.45		73.00		228.45
Non-hazardous	30.00		41.00		71.00
Store and Office Employees	24.55		12.00		36.55
Total	\$97,246.10	\$45,294.61	\$18,254.55	\$4,040.00	\$164,835.26

COMPENSATION PAYMENTS CLASSIFIED AS TO INDUSTRY—(Continued).

From July 1, 1915, to June 30, 1919.

ALL PLANS.

INDUSTRIES	Payments Not Fatal	Fatal	Medical and Hospital	Burial	Total
Bakeries	\$ 336.67		\$ 288.50		\$ 625.17
Boot and Shoe Manufacturing			25.00		25.00
Blacksmith Shops	245.69		251.75		497.44
Brick Manufacturing	648.05		683.50		1,331.55
Building Canals	80.00		37.00		117.00
Brick Work Construction	1,341.24		281.50		1,622.74
Bridge Building	8,037.24	\$ 1,874.00	673.80	\$ 375.00	10,960.04
Butcher Shops	318.00		143.50		461.50
Contractors and Builders	23,509.05	3,392.00	9,033.85		35,934.90
Creameries	3,611.60	350.00	1,267.35	150.00	5,378.95
Coal and Wood Yards, No Power	1,793.23		1,495.25	75.00	3,363.48
Coal and Wood Yards, With Power	2,147.48	3,316.00	1,722.30	150.00	7,335.78
Candy and Crackers Mfg.	866.30		641.00		1,507.30
Cheese Factories			25.00		25.00
Cabinet Makers	516.69		258.50		775.19
Clay Products	772.30		125.00		897.30
Cement Manufacturing	5,879.42	9,561.45	172.80	600.00	15,713.67
Cellar Excavations	230.00		39.00	75.00	344.00
Concrete Structures	426.73		103.15		529.88
Concrete Work	993.29		242.65		1,235.94
Car Repairing, Railway	12.47				12.47
Electric Power	37,911.84	33,998.70	1,184.25	1,689.36	74,784.15
Electric Systems	306.45		100.00		406.45
Electric Railways, Operating	3,097.55	6,760.00	124.00	150.00	10,131.55
Explosives Manufacturing	136.35		345.65	150.00	632.00
Electric Apparatus Installing, Inside	328.60		340.00		668.60
Electric Apparatus Installing, Outside	950.00		43.75		993.75
Excavations	2,296.90		392.50		2,689.40
Flour Mills	3,451.28		2,415.93		5,867.21
Foundries	2,070.20		1,336.75		3,406.95
Firemen	119.75		290.35		410.10
Food Stuffs, Working in	172.21		202.50		374.71
Furnaces, Installing	30.00		67.00		97.00
Grain Elevators and Breweries	5,471.57	4,433.00	3,410.50	150.00	13,465.07
Grain Elevators, Construction	515.00		439.85	75.00	1,029.85
Garages, With Power	2,282.52	1,800.00	2,651.90	75.00	6,809.42
Garages, Without Power	355.96		452.00		807.96
Glass Setting			102.00		102.00
Gravel Hauling	185.35		157.00		342.35
Gravel Pits	766.70		163.25		929.95
Garbage Works	213.30		100.00		313.30
Heating Apparatus, Installing	595.00		155.00		750.00
Hot Flooring Composition, Laying			50.00		50.00
Heating Systems, Installing			55.00		55.00
Incinerators and Crematories	1,557.30		49.50		1,606.80
Ice Harvesting	3,395.96		2,026.67		5,422.63
Iron and Tin Works	144.33		174.50		318.83
Iron and Steel Frames, Const.			47.05		47.05
Janitors and Engineers	109.10		134.50		243.60
Laundries	1,827.06		2,502.01		4,329.07
Logging	36,831.37	7,183.50	1,316.90	1,575.00	46,906.77
Lathing and Plastering	121.66		51.50		173.16
Lime Kilns			5.00	75.00	80.00
Mining, Coal	89,541.26	96,505.18	4,554.03	4,765.90	195,366.37
Mining, Not Coal	352,597.98	659,176.14	4,656.03	34,115.00	1,050,545.15
Machinery Installing	198.10		190.60		388.70
Milling Ore	5,296.49	985.50	1,495.90	300.00	8,077.89
Moving Pictures	213.00		48.50		261.50
Meat Markets	30.00		132.50		162.50
Mantel Work			5.00		5.00
Machine Shops	1,033.53		349.40		1,382.93
Meat Canneries	229.25		131.00		360.25
Mattress Manufacturing	246.87		67.00		313.87
Marble Works	65.00		32.00		97.00
Machinery Moving	334.35		157.50		491.85
Printing and Publishing	4,502.47		1,295.30		5,797.77
Plumbing	1,188.78		1,084.72	75.00	2,348.50
Planing Mills	2,265.85		551.15		2,817.00
Paper Hanging			20.00		20.00
Paving, Asphalt	722.28		282.50		1,004.78
Painting, Exterior	428.33		377.85		806.18
Packing Plants	431.65		79.00		510.65

COMPENSATION PAYMENTS CLASSIFIED AS TO INDUSTRY—(Continued).

From July 1, 1915, to June 30, 1919.

ALL PLANS.

INDUSTRIES	Payments Not Fatal	Fatal	Medical and Hospital	Burial	Total
Pile Driving				75.00	75.00
Quarries	180.08		238.00		418.08
Road Work, No Blasting.....	10,414.94	3,975.00	2,845.45	300.00	17,535.39
Road Work, With Blasting.....	243.50		122.00	150.00	515.50
Reservoirs and Dams Const'n.....	273.73		116.00		389.73
Railways Const'n, No Blasting.....	4,528.65	3,940.00	384.15	300.00	9,152.80
Railway Const'n, With Blasting.....	9,230.38	5,204.80	2,379.54	276.50	17,091.22
Railway Construction, Logging.....	29.03		50.00		79.03
Roof Work	152.25		282.00		434.25
Smelters	87,892.15	110,846.95	492.19	1,500.00	200,731.29
Saw Mills	20,429.93	3,068.75	1,670.17	225.00	25,393.85
Steam Threshers	804.79		199.75		1,004.54
Soap Factories	70.00		121.00		191.00
Stone Cutting	1.65		10.00		11.65
Sugar Factories	4,087.61	1,080.00	2,310.61	75.00	7,553.22
Steam Heating		2,180.00	56.00	75.00	2,311.00
Slaughtering	2,571.02	3,414.00	679.00	75.00	6,739.02
Sash and Door Factories.....	58.35		113.00		171.35
Shingle Mills	39.00		12.00		51.00
Sewer Construction, Under 7 Ft.....	514.01		181.20		695.21
Sewer Construction, Over 7 Ft.....	227.45	1,600.00	234.00		2,061.45
Sheet Metal Works	65.00		73.50		138.50
Stone Work	41.65		11.00		52.65
Steel Frames Construction.....	41.45		59.50		100.95
Street Work	4,047.37		1,353.85	75.00	5,476.22
Stone Crushing			7.00		7.00
Steel Frames and Structures.....	1,044.00		50.00		1,094.00
Telephone and Telegraph.....	9,398.95	997.03	7,476.53	150.00	18,022.51
Tunnel Work	1,684.60	420.30	47.15	75.00	2,227.05
Teaming and Transfer.....	5,435.43	3,380.00	2,192.50	75.00	11,082.93
Theater Stage Employees.....			23.00		23.00
Textile Manufacturing	374.47		166.75		541.22
Tank and Tower Construction.....	534.29		154.00		688.29
Waterworks Operating	1,127.13		751.60		1,878.73
Waterworks Construction	10.50	443.04		75.00	528.54
Well Drilling	240.05	3,340.00	131.25	150.00	3,861.30
Non-hazardous	30.00		44.00		74.00
Store and Office Employees.....	24.55		12.00		36.55
Unclassified			69.48		69.48
Total	\$781,681.91	\$973,225.34	\$79,024.36	\$48,271.76	\$1,882,203.37

**COMPENSATION PAYMENTS CLASSIFIED AS TO DEGREE OF DISABILITY
AND PLAN BY YEARS.**

PLAN NO. 1.

	First Year	Second Year	Third Year	Fourth Year	Total
Temporary Total	\$ 45,330.32	\$ 90,913.29	\$ 91,300.17	\$ 92,879.31	\$ 320,423.09
Permanent Partial	19,177.36	35,007.55	48,243.12	47,942.16	150,370.19
Permanent Total	7,234.00	23,623.00	3,984.00	8,724.00	43,565.00
Fatal	160,891.06	219,098.22	259,807.42	181,512.86	821,309.56
Medical and Hospital	4,826.79	4,674.18	3,804.42	2,643.37	15,948.76
Burial	7,165.00	13,875.90	10,050.00	7,014.36	38,105.26
Total	\$244,625.43	\$387,192.14	\$417,189.13	\$340,716.06	\$1,389,721.86

PLAN NO. 2.

	First Year	Second Year	Third Year	Fourth Year	Total
Temporary Total	\$ 1,356.42	\$ 36,013.24	\$ 37,062.96	\$ 15,042.26	\$ 109,474.88
Permanent Partial	5,400.22	12,248.77	21,166.55	7,885.73	46,701.27
Permanent Total	460.00	7,152.38	5,249.00	1,040.00	13,901.38
Fatal	8,220.24	18,524.53	68,687.40	11,189.00	106,621.17
Medical and Hospital	5,608.75	12,636.57	15,672.04	10,903.69	44,821.05
Burial	1,425.00	2,325.00	1,851.50	525.00	6,126.50
Total	\$42,470.63	\$88,900.49	\$149,689.45	\$46,585.68	\$327,646.25

PLAN NO. 3.

	First Year	Second Year	Third Year	Fourth Year	Total
Temporary Total	\$3,267.79	\$13,432.83	\$20,006.64	\$30,310.40	\$ 67,017.66
Permanent Partial	1,620.56	2,599.33	10,545.70	15,371.65	30,137.24
Fatal		13,178.46	16,559.60	15,556.55	45,294.61
Medical and Hospital	1,415.00	3,886.55	6,999.35	5,894.85	18,195.75
Burial		1,490.00	1,125.00	1,575.00	4,190.00
Total	\$6,303.35	\$34,587.17	\$55,236.29	\$68,708.45	\$164,835.26

**COMPENSATION PAYMENTS CLASSIFIED AS TO DEGREE OF DISABILITY
BY ALL PLANS AND YEARS.**

	First Year	Second Year	Third Year	Fourth Year	Total
Temporary Total	\$ 69,954.53	\$140,359.36	\$148,369.77	\$138,231.97	\$ 496,915.63
Permanent Partial	26,198.14	49,855.65	79,955.37	71,199.54	227,208.70
Permanent Total	7,694.00	30,775.38	9,233.00	9,764.00	57,466.38
Fatal	169,111.30	250,801.21	345,054.42	208,258.41	973,225.34
Medical and Hospital	11,850.54	21,197.30	26,475.81	19,441.91	78,965.56
Burial	8,590.00	17,690.90	13,026.50	9,114.36	48,421.76
Total	\$293,398.51	\$510,679.80	\$622,114.87	\$456,010.19	\$1,882,203.37

INDUSTRIAL ACCIDENT BOARD

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CITY AND TOWN PAYROLLS FOR YEAR ENDING DECEMBER 31ST, 1918.

Average Rate for Year.

Number	City or Town	Nature of Business	%	Total Payrolls	Total Premium	Average Rate	accidents Yr. Ending July 31, 1919
265	City of Anaconda.....	Municipal		33,799.45	605.81	.0179	
1,261	City of Baker.....	"		2,130.00	20.24	.0095	
331	Town of Bearcreek.....	"		None	None	None	
127	Town of Belgrade.....	"		None	None	None	
78	Town of Belt.....	"		4,021.62	32.83	.0084	
302	Town of Big Sandy.....	"		1,804.50	27.07	.0180	
64	City of Big Timber.....	"		1,636.69	13.41	.0081	1
156	City of Billings.....	"		94,322.74	1,165.05	.0123	
292	City of Boulder.....	"		634.00	4.76	.0075	
225	City of Bozeman.....	"		28,992.75	257.95	.0088	
323	Town of Bridger.....	"		325,428.49	4,452.01	.0136	1
88	City of Butte.....	"		150.70	1.43	.0095	
277	Town of Cascade.....	"		420.00	3.99	.0095	
386	Town of Chester.....	"		3,951.00	69.32	.0175	
380	Town of Chinook.....	"		1,787.50	16.03	.0089	
312	Town of Choteau.....	"		None	None	None	
340	Town of Clyde Park.....	"		677.47	5.08	.0074	
341	Town of Columbia Falls.....	"		2,460.00	21.20	.0086	
108	Town of Columbus.....	"		2,032.95	15.25	.0074	
375	Town of Conrad.....	"		2,095.02	15.71	.0074	
324	Town of Culbertson.....	"		1,449.10	13.77	.0095	
313	Town of Cut Bank.....	"		2,622.00	19.67	.0075	
390	City of Deer Lodge.....	"		4,745.11	41.16	.0086	1
98	City of Dillon.....	"		None	None	None	
299	Town of Ekalaka.....	"		1,404.33	10.75	.0076	
339	Town of Eureka.....	"		1,450.00	11.38	.0078	
285	City of Forsyth.....	"		2,274.75	17.06	.0075	
107	City of Fort Benton.....	"		1,578.20	12.58	.0079	
298	Town of Fromberg.....	"		13,344.20	180.33	.0135	1
65	City of Glasgow.....	"		10,246.61	103.67	.0101	2
68	City of Glendive.....	"		163,811.34	2,403.98	.0146	
66	City of Great Falls.....	"		3,468.72	51.10	.0147	
349	City of Hamilton.....	"		3,713.15	29.94	.0060	
284	Town of Hardin.....	"		2,055.00	19.39	.0094	
351	Town of Harlem.....	"		864.62	7.16	.0082	
360	Town of Harlowton.....	"		20,829.86	230.62	.0110	
354	City of Havre.....	"		64,883.63	921.34	.0141	1
567	City of Helena.....	"		1,455.00	23.64	.0162	
269	Town of Hysham.....	"		871.00	6.53	.0074	
320	Town of Joliet.....	"					

CITY AND TOWN PAYROLLS FOR YEAR ENDING DECEMBER 31ST, 1918—(Continued)

Number	City or Town	Average Rate for Year.		Total Payrolls	Total Premium	Average Rate	Accidents Yr. Ending July 31, 1919
		Nature of Business	Municipal				
387	Town of Judith Gap.....		Municipal	None	None	None	
73	City of Kalispell.....		"	25,195.53	287.29	.0114	
63	Town of Laurel.....		"	1,529.50	14.23	.0093	
100	City of Lewistown.....		"	23,002.09	376.00	.0163	
311	Town of Libby.....		"	684.00	5.13	.0075	
32	City of Livingston.....		"	5,693.00	124.49	.0218	
314	Town of Malta.....		"	2,711.05	22.19	.0081	
272	Town of Manhattan.....		"	855.00	2.66	.0074	
303	Town of Medicine Lake.....		"	7.84	825.00	.0095	
334	Town of Melstone.....		"	2,005.50	26.16	.0130	
52	City of Miles City.....		"	67,032.78	1,010.25	.0150	2
62	City of Missoula.....		"	35,773.18	631.18	.0176	
454	Town of Moore.....		"	180.00	1.71	.0095	
276	Town of Neilhart.....		"	None	None	None	
416	Town of Phillipsburg.....		"	1,252.25	9.39	.0074	
268	Town of Plains.....		"	None	None	None	
388	Town of Plentywood.....		"	632.00	6.00	.0094	
67	Town of Polson.....		"	2,786.96	20.91	.0075	
361	Town of Pony.....		"	1,076.50	8.07	.0074	1
90	City of Red Lodge.....		"	6,496.45	86.90	.0124	
85	City of Roundup.....		"	7,052.76	62.65	.0088	
350	Town of Shelby.....		"	1,800.00	17.10	.0095	
354	Town of Sheridan.....		"	None	None	None	
300	Town of Sidney.....		"	3,037.30	30.79	.0101	
376	Town of Stanford.....		"	3,400.00	3.00	.0075	
506	Town of Stevensville.....		"	1,880.60	14.10	.0074	
409	Town of Terry.....		"	796.55	5.97	.0075	
264	City of Thompson Falls.....		"	337.92	2.53	.0074	
273	Town of Three Forks.....		"	867.64	6.50	.0075	
377	Town of Townsend.....		"	658.50	5.37	.0081	
327	Town of Troy.....		"	2,185.45	18.14	.0083	
203	Town of Twin Bridges.....		"	None	None	None	
357	Town of Valler.....		"	None	None	None	
288	City of Virginia City.....		"	None	None	None	
86	City of Walkerville.....		"	6,627.50	71.47	.0107	
70	Town of Whitefish.....		"	5,152.32	49.58	.0096	
310	Town of Wolf Point.....		"	2,013.40	15.89	.0078	
293	Town of White Sulphur Springs.....		"	2,836.53	7.02	.0074	
				\$1,017,358.74	\$13,765.62	.0135	

SCHOOL DISTRICT PAYROLLS FOR YEAR ENDING DECEMBER 31ST, 1918.

Average Rate for Year .0106.

Number	School District	Nature of Business	Average Rate for Year .0106.	Total Payrolls	Total Premium	Average Rate	Accidents Yr. Ending July 31, 1919
538	Baker School Dist. No. 12.....	Municipal		\$ 1,195.00	\$ 11.95	.0100	....
449	Bearecreek School Dist. No. 31.....	"		1,260.00	12.60	.0100	....
411	Belfrage School Dist. No. 4.....	"		1,143.20	11.43	.0100	....
418	Belt School Dist. No. 29.....	"		2,341.11	23.41	.0099	....
562	Billings School Dist. No. 2.....	"		17,708.30	177.08	.0100	....
463	Boulder School Dist. No. 7.....	"		1,020.00	10.20	.0100	....
437	Bozeman School Dist. No. 7.....	"		3,482.60	34.83	.0100	....
525	Butte School Dist. No. 1.....	"		68,984.67	838.52	.0121	1
459	Chinook Public Schools.....	"		1,730.00	17.30	.0100	....
523	Choteau School Dist. No. 1.....	"		805.00	8.05	.0100	....
458	Clyde Park School Dist. No. 41.....	"		420.00	4.20	.0100	....
425	Columbia Falls School Dist. No. 41.....	"		1,525.00	15.25	.0100	....
524	Conrad School Dist. No. 10.....	"		1,970.00	19.70	.0100	....
419	Calhoun School Dist. No. 17.....	"		665.00	6.65	.0100	....
447	Columbia School Dist. No. 6.....	"		1,105.00	11.05	.0100	....
435	Cut Bank School Dist. No. 15.....	"		1,750.00	17.50	.0100	....
729	Dawson County Free High School.....	"		2,832.63	26.19	.0092	....
564	Deer Lodge School Dist. No. 1.....	"		1,020.00	10.20	.0100	....
527	Dillon School Dist. No. 10.....	"		2,165.00	21.65	.0100	....
427	Elk Lake School Dist. No. 15.....	"		525.00	5.25	.0100	....
414	Elk Lake School Dist. No. 15.....	"		2,110.00	21.10	.0100	....
414	Fort Fenton School Dist. No. 1.....	"		1,892.50	14.87	.0078	....
450	Geraldine School Dist. No. 44.....	"		2,477.70	24.77	.0099	....
632	Geraldine School Dist. No. 1.....	"		19,573.90	195.74	.0100	....
431	Great Falls School Dist. No. 1.....	"		2,158.64	21.59	.0100	....
433	Hamilton School Dist. No. 3.....	"		495.00	4.95	.0100	....
438	Harlem School Dist. No. 12.....	"		1,250.00	12.50	.0100	....
420	Harlem School Dist. No. 16.....	"		5,231.58	52.32	.0100	....
1,014	Havre School Dist. No. 16.....	"		15,048.07	150.48	.0099	....
561	Helena School Dist. No. 1.....	"		4,267.72	42.62	.0100	....
532	Kalispell School Dist. No. 5.....	"		1,982.70	19.83	.0100	....
557	Laurel School Dist. No. 7.....	"		4,182.00	41.82	.0100	....
460	Lewistown School Dist. No. 1.....	"		9,085.00	90.85	.0100	....
503	Libby School Dist. No. 1.....	"		4,839.00	48.39	.0100	....
668	Livingston School Dist. No. 4.....	"		7,624.84	76.25	.0096	....
413	Miles City School Dist. No. 1.....	"		1,724.00	17.24	.0100	....
595	Philipsburg School Dist. No. 1.....	"		1,160.00	11.60	.0100	....
551	Pleantywood School Dist. No. 20.....	"		3,324.40	33.24	.0090	....
443	Roundup School Dist. No. 65.....	"		802.73	8.03	.0109	....
417	Sheridan School Dist. No. 6.....	"		525.00	5.25	.0100	....
568	Stanford School Dist. No. 12.....	"					

SCHOOL DISTRICT PAYROLLS FOR YEAR ENDING DECEMBER 31ST, 1918—(Continued)

Average Rate for Year .0106.

Number	School District	Nature of Business	Total Payrolls	Total Premium	Average Rate	Accidents Yr. Ending July 31, 1919
426	Terry School Dist. No. 5.....	Municipal	1,229.09	13.30	.0100	....
464	Thompson Falls School Dist. No. 2.....	"	958.45	9.58	.0100	....
410	Townsend School Dist. No. 7.....	"	1,065.00	10.65	.0100	....
436	Troy School Dist. No. 1.....	"	1,200.00	12.00	.0100	....
505	Twin Bridges School Dist. No. 7.....	"	341.15	3.41	.0099	....
753	Valley School Dist. No. 18.....	"	1,050.00	10.50	.0100	....
423	Virginia City School Dist. No. 1.....	"	350.00	3.50	.0100	....
421	Whitefish School Dist. No. 44.....	"	2,025.00	20.25	.0100	....
415	Whiteball School Dist. No. 4.....	"	1,138.87	11.39	.0100	....
543	White Sulphur Springs School Dist. No. 8.....	"	1,045.00	10.45	.0100	....
412	Wibaux School Dist. No. 6.....	"	437.50	4.58	.0100	....
			\$205,767.26	\$ 2,195.50	.0106	....

COUNTY PAYROLLS FOR YEAR ENDING DECEMBER 31ST, 1918.

Average Rate for Year.

Number	Name of County	Name of Business	Total Payrolls \$	Total Premium \$	Average Rate	Accidents Yr. Ending July 31, 1919
404	Beaverhead	Municipal	31,194.37	367.50	.0117	
980	Big Horn	"	21,575.58	260.95	.0120	1
908	Blaine	"	18,196.15	231.51	.0143	1
971	Broadwater	"	15,726.63	153.88	.0097	
309	Carbon	"	20,408.68	229.38	.0112	
303	Cartier	"	26,097.32	249.27	.0095	
1, 993	Cascade	"	57,947.26	566.74	.0097	
257	Chouteau	"	74,637.45	1,122.16	.0150	1
982	Custer	"	29,947.32	274.79	.0091	
356	Dawson	"	100,465.80	955.07	.0095	
336	Deer Lodge	"	9,241.31	76.80	.0083	
307	Fallon	"	46,885.54	564.86	.0120	1
338	Fergus	"	24,919.47	233.39	.0093	2
319	Flathead	"	58,787.25	690.97	.0117	1
281	Gallatin	"	47,972.60	539.12	.0112	1
328	Granite	"	15,812.47	182.15	.0115	
296	Hill	"	29,994.48	383.94	.0128	
270	Jefferson	"	20,462.90	195.00	.0095	2
362	Lewis and Clark	"	60,888.72	643.56	.0105	1
352	Lincoln	"	21,042.40	250.23	.0118	1
340	Madison	"	26,181.82	261.43	.0099	1
370	Meagher	"	9,015.06	96.41	.0106	1
369	Mineral	"	18,570.16	190.41	.0102	5
301	Missoula	"	44,977.22	446.96	.0099	
348	Musselshell	"	19,436.58	187.47	.0096	
279	Park	"	24,186.68	301.43	.0126	
374	Phillips	"	11,324.15	108.21	.0095	
325	Powell	"	7,708.78	101.40	.0131	
343	Prarie	"	15,401.77	169.25	.0109	
282	Ravalli	"	29,477.58	326.34	.0110	
305	Richland	"	11,638.66	105.06	.0091	
286	Rosebud	"	24,197.97	269.86	.0110	
368	Sanders	"	47,105.52	579.96	.0123	1
321	Sheridan	"	34,727.14	357.85	.0103	1
	Silver Bow	"	70,726.16	714.84	.0101	

COUNTY PAYROLLS FOR YEAR ENDING DECEMBER 31ST, 1918—(Continued).

Average Rate for Year.

Number	Name of County	Nature of Business	Total Payrolls	Total Premium	Average Rate	Accidents Yr. Ending July 31, 1919
383	Stillwater .....	.....Municipal	30,954.41	341.79	.0110	1
332	Sweet Grass .....	.....	10,471.30	99.98	.0095	....
291	Teton .....	.....	19,958.90	205.24	.0102	....
283	Toule .....	.....	29,538.15	281.16	.0095	1
301	Valley .....	.....	18,609.92	208.66	.0112	....
381	Wilbur .....	.....	17,196.98	187.22	.0108	....
384	Wheatland .....	.....	19,858.97	194.64	.0098	....
1,002	Yellowstone .....	.....	75,390.32	1,086.75	.0144	....
367						
			\$1,349,208.70	\$15,028.59	.0112	....

SCHEDULE SHOWING AVERAGE RATES FOR STATE INSTITUTIONS
Year Ending December 31, 1918.

Institutions	Total Payrolls	Total Premium	Average Rate	Accidents Yr. Ending July, 31 1919
Agricultural College.....	\$16,630.34	\$ 199.27	.0119	1
Deaf and Dumb School	15,215.00	112.66	.0074	..
Experiment Station	23,613.09	224.32	.0094	1
Industrial School	5,365.00	47.79	.0089	..
Montana State Fair	5,843.45	58.43	.0100	..
Normal School	7,316.88	63.31	.0086	..
Orphans Home	17,635.00	110.92	.0062	1
School of Mines	3,619.50	36.20	.0100	..
Soldiers Home	10,920.00	61.00	.0055	..
State Highway	26,288.09	249.74	.0095	1
State Hospital	76,259.12	515.92	.0067	1
State of Montana	20,247.00	202.47	.0100	..
State Penitentiary	45,300.11	468.58	.0103	..
Tuberculosis Sanitarium	19,972.00	140.09	.0070	1
University of Montana	22,473.66	224.88	.0100	1
	<u>\$316,698.24</u>	<u>\$2,715.58</u>	<u>.0085</u>	

PAYROLLS FOR YEAR ENDING DECEMBER 31ST, 1918.

Private Employers. Plan No. 3.

Number	Name of Employer	Nature of Business	Total Payrolls	Total Premium	Average Rate	Accidents Yr. Ending July 31, 1919
1,005	Absarokee Mercantile Co.	Power Plant	993.57	\$ 22.19	.0223	....
1,632	Adam Brothers	Contractor	1,136.25	10.79	.0094	....
1,262	W. G. Adams	Plumbing	1,133.09	16.43	.0145	....
1,805	W. L. Adams	Contractor	91,740.62	1,720.14	.0187	13
577	James T. Ainslie	Contractor	2,194.36	35.66	.0162	1
1,009	Isaac Aldritt	Logging	842.00	5.47	.0064	....
1,242	John E. Alm	Contractor	637.20	10.35	.0162	....
1,677	Alta Montana Mining Co.	Mining	12,183.18	213.21	.0175	....
984	Amalgamated Silver Mines Co.	Mining	24,131.65	422.30	.0175	3
510	American Gem Mining Co.	Mining	14,181.30	248.17	.0174	....
371	American Printing Co.	Printing	5,803.38	18.86	.0032	....
51	American Steam Laundry	Laundry	10,136.85	81.09	.0080	....
1,094	Anton Anderson	Contractor	1,053.45	9.38	.0089	....
1,284	Sam Anderson	Contractor	650.00	14.62	.0225	....
1,071	Angelica Mining & Dev. Co.	Mining	59,490.25	1,041.08	.0175	4
1,259	Annin and Banks	Mining	2,910.00	7.28	.0025	....
1,379	J. J. Appel	Dry Goods	2,122.75	37.15	.0175	....
1,367	Joe Arnott	Mining	240.80	4.21	.0174	....
1,891	Auerbach M. & M. Mach. Supply Co.	Mining	31,491.71	551.11	.0175	....
326	T. N. Averill	Contractor	1,084.00	22.74	.0209	....
1,253	Baird-Harper Lumber Co.	Lumbering	95,711.94	1,161.48	.0121	8
1,243	Baker and Gaebelein	Mining	11,902.58	208.30	.0175	....
1,988	Bald Butte Min. & Mfg. Co.	Mining	1,027.00	17.97	.0174	....
657	Baker Brothers	Lumbering	21,003.60	288.80	.0137	1
121	Baker Light & Power Co.	Power Plant	2,319.04	37.68	.0162	....
594	R. D. Baker & Sons	Blacksmith	3,331.75	24.99	.0075	....
722	Baldwin Lumber Co.	Lumbering	7,682.50	57.62	.0075	....
1,214	Barnack Mfg. & Mfg. Co.	Mining	428.90	7.51	.0175	....
1,410	R. M. Barsden & Co.	Contractor	21,261.12	186.46	.0087	1
1,349	J. R. Barnett	Threshing	372.00	4.65	.0125	....
1,143	Barton Gulch Mining Co.	Mining	5,662.00	99.09	.0175	....
1,511	Basin Mining Co.	Mining	8,078.70	141.38	.0175	1
1,066	Basin Salvage Co.	Mining	43,585.71	762.75	.0175	1
1,069	Basin Salvage Co.	Mining	292,288.11	5,115.04	.0175	16
501	Bearcreek Coal Co.	Mining	4,468.03	55.33	.0123	....
141	Bearcreek Water & Light Co.	Power Plant	6,098.80	99.11	.0162	....
143	Peter Beauchine	Contractor	138,314.72	2,420.51	.0175	5
250	Beaver Creek Mining Co.	Mining	138,788.00	12.92	.0175	....
827	Beaver Mining Co.	Mining	8,991.58	146.11	.0162	....
765	Geo. A. Belding Co.	Contractor	936.55	15.22	.0162	....
	Bell and Fransden	Contractor				

PAYROLLS FOR YEAR ENDING DECEMBER 31ST, 1918—(Continued),
Plan No. 3.

Number	Name of Employer	Nature of Business	Total Payrolls	Total Premium	Average Rate	Accidents Yr. Ending July 31, 1919
1,043	Belt Coal Co.	Mining	2,796.25	47.71	.0175	—
831	Belt Valley Times Co.	Printing	2,594.00	1.93	.0032	—
731	Bembrick Ranch Co.	Traction	7,890.80	95.75	.0124	—
907	Chas. A. Bennett	Contractor	1,649.01	25.27	.0153	—
1,289	Benton Mfg. & Elev. Co.	Elevator	7,655.45	5.74	.0074	1
1,360	F. Benoit	Contractor	271.00	1.90	.0070	—
1,120	Berg Decorating Co.	Painting	4,372.46	41.79	.0095	—
610	B. Betor	Teaming	7,941.10	51.62	.0065	—
55	Big Seven Mining Co.	Mining	2,400.50	42.01	.0175	—
1,290	Bielenberg and Higgins	Mining	4,180.65	76.16	.0114	—
1,288	Billings Cabinet Co.	Sash and Door Mfg.	7,067.28	81.27	.0110	1
1,481	Billings Sash & Door Co.	Sash and Door Mfg.	6,592.83	72.52	.0110	—
848	Billings Marble & Granite Works	Stone Cutting	1,384.05	10.38	.0075	—
1,244	Billings Utility Co.	Plumbing and Heating	13,792.12	137.92	.0100	—
8	S. Birsch & Sons Const. Co.	Contractor	13,653.79	131.61	.0095	—
136	Max B. Bishop	Printing	1,438.00	4.64	.0032	—
120	Bitter Root Co.-Op., Creamery	Creamery	9,905.00	69.34	.0070	—
136	Bitter Root Valley Irrigation Co.	Telephone	3,993.70	37.94	.0095	—
863	Blain and Lindstrom	Contractor	3,708.42	60.26	.0162	—
499	The Bon Ton	Bakery	9,560.99	86.05	.0090	—
857	A. Bendsten	Contractor	3,990.30	62.03	.0158	—
641	Bonniers Ferry Lumber Co.	Mining Coal	4,925.75	67.87	.0138	—
1,257	Bosanattyz & Hagenberger	Contractor	4,771.50	13.50	.0175	—
1,121	F. F. Bossuot	Mining	1,240.00	20.15	.0162	—
315	Boston & Montana Dev. Co.	Teaming	69,433.06	1,055.56	.0031	1
474	Harry J. Bostwick	Power Plant	3,600.00	33.82	.0093	—
1,151	Bowen Bros. Elec. L. & P. Co.	Machinist	1,021.80	17.88	.0182	—
905	Chas. Bowhay & Son	Cannery	1,002.65	42.54	.0074	—
1,326	Bozeman Canning Co.	Planing Mill	15,437.05	256.51	.0165	—
77	Bozeman Manufacturing Co.	Telephone	1,600.50	20.59	.0132	—
1,151	Bozeman Norris Phone Co.	Plumbing	2,167.58	27.59	.0092	2
145	P. H. Brader	Teaming	4,557.43	55.28	.0092	—
742	Bradford Co.	Mining Coal	3,187.50	65.78	.0115	3
239	Allen H. Brew	Mining Coal	36,943.37	616.51	.0115	—
4	Bridger Water and Light Co.	Power Plant	14,406.05	136.89	.0095	—
895	Britton Lumber Co.	Lumbering	3,310.00	24.83	.0075	—
854	Broadway Garage Co.	Garage	4,036.70	26.63	.0065	—
452	Jas. Brodie & Sons	Mining Coal	8,438.14	147.67	.0115	1
1,131	Robert Brogelmann	Bakery	3,800.00	15.20	.0040	1

PAYROLLS FOR YEAR ENDING DECEMBER 31ST, 1918—(Continued).

Private Employers. Plan No. 3.

Number	Name of Employer	Nature of Business	Total Payrolls	Total Premium	Average Rate	Accidents Yr. Ending July 31, 1919
1,361	F. D. Brown & E. W. Brown	Mining	2,136.50	37.39	.0175	...
1,310	F. W. Brown	Threshing Machine	2,100.00	26.25	.0125	...
1,081	J. N. Brown	Contractor	1,991.50	18.92	.0095	...
1,201	J. N. Brown	Contractor	1,936.00	31.46	.0162	...
1,846	Brown Coal Co.	Mining Coal	160,017.01	2,800.30	.0175	2
1,109	R. W. Bruce	Painting	818.70	7.00	.0085	...
1,776	Builders Brick Co.	Brick Mfg.	5,002.27	45.02	.0089	...
1,307	Bullion Mining Co.	Mining	4,356.61	76.24	.0174	1
1,251	Alexander Bunton	Mining	489.25	8.56	.0175	...
1,355	Fred Burlingham	Sash and Door Mfg.	481.35	5.54	.0115	...
866	Burr and Haug	Mining	1,270.00	22.23	.0175	...
1,230	W. O. Burrill	Logging	2,199.25	26.64	.0121	...
1,359	Butte Battery Co.	Auto Repair	1,016.00	7.62	.0075	...
1,208	Butte Cardwell Copper Mng. Co.	Mining	2,790.75	48.84	.0175	...
1,047	Butte Copper Czar Mining Co.	Mining	24,973.26	437.03	.0175	...
1,376	Butte & New England Copper Co.	Mining	4,163.98	72.87	.0175	2
1,344	Butte Bullwhacker Mining Co.	Mining	43,729.87	765.27	.0174	1
1,237	Butte & Plutus Mining Co.	Mining	15,115.55	264.52	.0175	2
1,076	Butte Ramsdell Copper Co.	Mining	75,772.30	1,326.02	.0175	3
1,319	Butte Sewer Pipe & Tile Co.	Brick Yard	9,556.05	80.58	.0084	2
1,091	Butte Tombstone Co.	Stone Cutting	17,010.20	127.58	.0075	1
1,956	Butte Welding Co.	Mining	2,108.50	15.81	.0075	...
1,040	Butte & Zenith City Mng. Co.	Mining	9,642.55	168.74	.0174	...
948	Cable Mining Corp.	Mining	11,005.11	192.59	.0175	...
948	Calone and Johnson	Coal Mining	8,144.76	142.53	.0175	...
365	Henry-Camp Company	Coal Mining	944.62	7.08	.0075	...
953	Carbon Coal & Coke Co.	Contractor	125,836.60	2,202.14	.0174	3
1,128	Carbon & Moravetz	Coal Mining	332.50	5.82	.0175	...
1,615	Carbon Trading Co.	Coal Mining	3,483.98	8.71	.0025	...
1,085	Carleton	Non-hazardous	840.50	10.51	.0175	...
1,465	Carleton Carleton & Platt	Mining	2,706.40	60.89	.0024	...
1,267	John Carlson	Contractor	2,80.00	1.00	.0123	...
1,145	A. J. Carpenter	Painter	75,645.98	1,258.31	.0166	7
1,200	Cascade Silver Mines Co.	Mining	449.70	1.46	.0032	...
622	J. T. Casey	Printer	4,394.75	32.96	.0074	...
1,193	Central Electric Co.	Electric Shop	2,125.00	36.85	.0173	1
1,287	John Chaffee	Contractor	3,235.40	58.37	.0175	...
1,245	Chestnut Hill Coal Co.	Coal Mining	485.23	6.07	.0125	...
1,215	H. E. Cherrick	Saw Mill	4,108.40	32.87	.0080	...
808	Chinook Elev. & Milling Co.	Four Mill	2,947.50	22.11	.0075	...
878	Chinook Lumber Co.	Lumber Yard	1,470.00	4.78	.0032	...
141	Chouteau County Independent	Printers	107.00	2.40	.0025	...
1,263	E. H. Christian	Contractor				...

PAYROLLS FOR YEAR ENDING DECEMBER 31ST, 1918—(Continued).

Private Employers. Plan No. 3.

Number	Name of Employer	Nature of Business	Total Payrolls	Total Premium	Average Rate	Accidents Yr. Ending July 31, 1919
1,294	Christian Christianson	Mining	642.26	11.24	.0175	.....
1,834	Chronicle Publishing Co.	Printers	30,583.64	99.40	.0032	1
1,194	R. H. Clafin	Drayage	6,013.35	103.86	.0172	2
1,116	Harry H. Clague	Painting	15,541.19	118.00	.0075	.....
1,337	Clapper and Bakke	Garage	699.05	4.54	.0064	.....
1,267	Charles F. Clark Co.	Contractor	655.00	10.64	.0162	.....
747	W. W. Clarke	Contractor	1,367.58	21.28	.0155	.....
1,295	C. C. Clausen	Contractor	26.50	.20	.0075	.....
1,134	W. C. Clayton	Painting	2,190.20	15.33	.0070	.....
93	Cleaman and Company	Carpenter	16,102.65	261.67	.0162	.....
813	Clifton, Applegate, Toole & Lawler	Contractor	29,031.55	335.34	.0115	6
38	Clifton, Applegate & Toole	Contractor	97,416.78	1,277.25	.0131	.....
1,178	Climax Mining Co.	Mining	26,452.92	462.93	.0175	.....
1,109	Bruce Clyde	Team Work	5,512.00	35.83	.0065	.....
1,926	Coast Bridge Co.	Bridge Construction	8,327.53	187.37	.0225	1
27	John R. Colhagen	Contractor	35.00	.57	.0162	.....
130	Collins Plumbing & Heating Co.	Plumbing and Heating	2,753.46	26.16	.0095	.....
1,227	Collins and Winninghoff	Mining	9,792.55	171.37	.0175	.....
1,680	Smith Collinson	Logging	549.50	7.56	.0138	.....
1,150	Columbus Farmers Elev. Co.	Elevator	2,835.00	17.51	.0075	.....
69	Columbus News	Printer	5,015.55	16.30	.0032	.....
1,302	Conda Mining Co.	Mining	3,772.50	66.02	.0175	.....
1,033	Sam Connors	Logging	2,280.65	31.36	.0138	.....
1,304	Conrad Merc. Co.	Elevator	1,932.00	14.49	.0075	.....
1,833	George R. Cooper	Logging	18,917.76	260.12	.0137	.....
1,240	Cosgrove and Swartz	Butcher	6,611.25	42.97	.0064	1
762	Courtney Bros.	Mining	5,246.87	91.82	.0175	.....
99	C. L. Crane	Non-hazardous	1,465.80	3.66	.0024	.....
95	Crane Mercantile Co.	Non-hazardous	1,610.00	4.03	.0025	.....
468	W. C. Crum	Contractor	44.00	.72	.0162	.....
535	Cruse Cons. Mining Co.	Mining	21,461.40	375.57	.0175	.....
782	Crystal Copper Co.	Mining	45,581.45	797.68	.0174	.....
223	Crystal Graphite Co.	Mining	9,875.00	172.81	.0174	.....
847	Crystal Ice & Storage Co.	Ice and Storage	17,922.12	179.22	.0099	.....
493	Cumberland Mine Purchase	Mining	7,443.75	7.75	.0175	.....
620	J. C. Currah	Electrical Supplies	3,585.00	26.89	.0075	.....
1,395	Curran Coal Co.	Coal Mining	1,436.29	25.14	.0175	1
1,825	Cut Bank Milling Co.	Milling	7,861.87	62.90	.0080	2
1,249	S. J. d'Autremont, Jr.	Mining	7,934.73	138.86	.0175	.....
1,158	S. J. Dahlberg	Logging	18,895.14	259.81	.0175	.....
1,390	Daraber and Dyrnes	Mining	4,019.35	70.34	.0175	.....
1,188	R. F. Davis	Logging	2,550.00	35.06	.0137	.....

PAYROLLS FOR YEAR ENDING DECEMBER 31ST, 1918—(Continued).

Private Employers.

Plan No. 3.

Number	Name of Employer	Nature of Business	Total Payrolls	Total Premium	Average Rate	Accidents Yr. Ending July 31, 1919
1,405	Davis and Clark	Contractor	350.00	2.28	.0065	...
1,123	Davis Daly Copper Co.	Mining	678,760.90	11,878.32	.0175	27
1,045	Davis and Kernode	Brick Mfg.	3,495.20	22.72	.0065	...
11	Deer Lodge Electric Co.	Electrical Supplies	3,650.00	59.48	.0162	...
512	Deer Lodge Steam Laundry	Laundry	7,480.00	59.84	.0080	...
1,406	Peter DeGroot	Logging	270.50	8.72	.0137	...
1,115	J. A. Dennison	Contractor	1,185.26	8.30	.0070	...
429	Deschner Electric Co.	Elec. Supplies	190.00	1.42	.0075	...
1,159	Devitt and Shea	Teaming	2,161.20	14.05	.0065	...
1,383	Dillon Oil Co.	Min. & Retailing Shale	4,992.25	37.44	.0074	...
480	S. R. Dixon	Saw Mill	476.00	5.95	.0125	...
1,212	Fred S. Doegre	Contractor	850.53	17.70	.0208	...
7	Thomas Donlan	Logging	79,923.16	1,081.22	.0136	6
1,330	Harry Downs	Contractor	2,000.00	15.00	.0075	...
400	Doyle and Tibbals	Plumbing	2,359.00	22.41	.0095	...
1,392	Driscoll and Davis	Logging	8,030.58	110.42	.0137	1
1,305	Dunnigan and Donlin	Contractor	6,301.68	102.40	.0162	...
836	John Dryburgh	Contractor	2,973.80	48.32	.0162	...
1,216	East Belt Coal Co.	Coal Mining	1,255.00	21.96	.0174	...
514	Easton Pacific Co.	Mining	4,495.50	78.67	.0174	...
1,177	Eclipse Mining Co.	Mining	2,398.15	41.97	.0175	...
12	Economy Mines Co.	Mining	16,565.50	289.89	.0174	...
736	Economy Power Co.	Elec. Power	4,521.50	73.47	.0162	...
714	Eddy Steam Bakery	Bakery	14,525.65	58.10	.0039	2
105	B. F. Edwards	Contractor	746.00	5.60	.0075	...
441	A. W. Eiselein	Printing	4,881.80	15.87	.0032	...
976	Ekalaka Telephone Co.	Telephone	1,640.80	26.66	.0162	...
1,196	Electric Supply & Eng. Co.	Elec. Contractor	9,736.38	73.02	.0075	1
615	C. H. Elliott	Contractor	2,237.55	32.64	.0145	...
1,400	Fred Elliott	Contractor	1,579.00	15.00	.0095	...
1,306	Eliston Lime Co.	Quarrying	3,959.11	54.44	.0137	...
925	John C. Elzy	Contractor	8,212.11	53.38	.0065	1
1,118	Empire Construction Co.	Construction	7,170.47	135.87	.0189	...
187	Carl Engel	Non-hazardous	300.00	.75	.0025	...
1,332	Wm. O. Ensign	Printing	114.00	.37	.0032	...
258	Equity Co-Op. Assn., Belt	Elevator	1,650.00	12.38	.0075	...
832	Equity Co-Op. Assn., Brady	Elevator	2,395.00	17.96	.0074	...
213	Equity Co-Op. Assn., Cascade	Elevator	500.00	3.75	.0075	...
696	Equity Co-Op. Assn., Cut Bank	Elevator	1,500.00	11.25	.0075	...
629	Equity Co-Op. Assn., Gage	Elevator	1,531.00	3.98	.0075	...
456	Equity Co-Op. Elev. & Gen. Tr. Co.	Elevator	1,864.10	13.98	.0074	...
935	Equity Co-Op. Assn., Rudyard	Elevator	1,458.33	10.93	.0075	...

PAYROLLS FOR YEAR ENDING DECEMBER 31ST, 1918—(Continued).

Private Employers. Plan No. 3.

Number	Name of Employer	Nature of Business	Operator	Total Payrolls	Total Premium	Average Rate	Accidents Yr. Ending July 31, 1919
1,006	Equity Co-Op. Assn., Suffolk.	Elevator		1,500.00	11.25	.0075	....
1,889	Equity Co-Op. Assn., Wolf Point.	Elevator		3,134.90	23.51	.0074	....
135	Eureka Mutual Phone Co.	Telephone		2,189.35	25.58	.0162	....
569	H. D. Evans.	Threshing		1,782.25	23.35	.0132	....
1,036	Raymond J. Evans.	Contractor		700.00	6.65	.0095	....
1,938	W. R. Evans.	Contractor		537.59	8.74	.0162	....
1,336	F. E. Evans Contracting Co.	Contractor		19,885.35	276.43	.0139	2
1,409	Everett Star Dev. Co.	Mining		2,910.50	50.93	.0175	....
1,493	Everett B. Clark Seed Co.	Seeds		2,346.48	17.60	.0075	....
996	Farmers Co-Op. Elev. Co., Choteau.	Elevator		875.00	92.89	.0075	....
946	Farmers Co-Op. Assn., Havre.	Elevator		4,518.50	30.70	.0075	....
244	Farmers Co-Op. Assn., Savage.	Elevator		2,680.00	39.45	.0075	....
981	Farmers Co-Op. Assn., Winifred.	Elevator		4,460.00	37.87	.0075	1
877	Farmers Elev. Co. of Montana.	Elevator		1,050.00	7.97	.0078	....
877	Farmers Elev. Co., Homestead.	Elevator		4,813.20	37.85	.0078	....
877	Farmers Elevator Co., Stanford.	Elevator		600.00	4.10	.0075	....
535	Farmers Elevator Co., Twin Bridges.	Elevator		2,146.65	16.10	.0075	....
1,352	Farmers Grain & Shipping Co.	Elevator		375.00	12.81	.0075	....
182	Farmers Mutual Grain & Supply Co.	Elevator		2,514.25	18.86	.0076	....
713	Farmers Produce Co.	Elevator		7,665.00	57.49	.0162	....
1,187	Farmers Mutual Phone Co.	Telephone		830.00	23.37	.0152	....
1,248	John Farrell Co.	Contractor		1,438.12	13.37	.0095	....
1,549	Samuel W. Farrer.	Contractor		594.00	88.00	.143	....
265	Flint Creek Phone Co.	Telephone		235.00	1.83	.0095	....
1,377	Flora M. Fochs.	Butchers		195.00	1.85	.0095	....
678	John M. Fochs.	Contractor		12,416.75	159.64	.0128	1
5	Forsyth Elec. L. & P. Co.	Electric Power		11,492.26	186.75	.0162	....
1,222	Frazman Paint Co.	Painting		1,901.70	23.77	.0127	....
631	S. Fredericks.	Painting		1,185.35	9.20	.0077	....
705	Gus S. Freeburg.	Mining		200.00	3.50	.0145	....
1,191	Victor French.	Logging		14,125.77	176.57	.0124	1
835	Fronberg Pressed Brick Co.	Brick Mfg.		15,218.52	136.97	.0090	1
1,182	Furnace Creek Oxide Copper Co.	Mining		42,175.75	705.22	.0167	1
717	Gage Telephone Co.	Telephone		340.00	5.53	.0162	1
644	Gagnon and Gallagher.	Contractor		26,160.72	425.11	.0162	1
1,277	Joseph J. Gallager.	Plumbing and Heating		896.00	8.51	.0094	1
49	Gallatin Lumber Co.	Lumber		3,295.00	24.71	.0074	1
1,107	Galt Mining Co.	Mining		6,067.65	106.18	.0175	1
921	Garden City Bakery	Bakery		10,511.95	42.05	.0040	1
1,125	Gardner & Running.	Mining		616.35	10.79	.0175	....
527	Gazette Printing Co.	Printing		110,384.41	358.75	.0032	2

PAYROLLS FOR YEAR ENDING DECEMBER 31ST, 1918—(Continued).
Plan No. 3.

Private Employers.

Number	Name of Employer	Nature of Business	Total Payrolls	Total Premium	Average Rate	Accidents Yr. Ending July 31, 1919
751	General Construction Co.	Contractor	97,142.98	1,578.57	.0162	7
79	Gibson Concrete Works	Contractor	7,362.21	119.64	.0162	1
849	Gibson Concrete Works	Culvert Mfg.	1,089.75	13.62	.0124	.....
329	Harry Gilverton	Contractor	1,509.25	24.53	.0162	.....
809	Gilt Edge Lease	Mining	2,196.35	38.44	.0175	.....
1,259	Glasser Construction Co.	Contractor	3,212.01	52.20	.0168	.....
1,080	Glendive Milling Co.	Milling	4,295.58	34.36	.0079	.....
1,010	Wm. F. Gogging	Mining	985.00	17.24	.0175	.....
664	Gold Leaf Mining Co.	Mining	1,961.75	34.33	.0174	.....
1,088	Henry Good	Logging	23,981.03	329.74	.0137	11
1,628	Goodall Brothers	Assayers	2,550.50	16.58	.0065	.....
974	N. J. Gould	Mining	3,326.82	58.22	.0175	.....
1,352	J. P. Grady & Co.	Plumbing	2,937.13	27.90	.0095	.....
266	A. G. Graham	Contractor	123.00	2.00	.0162	.....
508	Granite Bitumetallic Cons. Mng. Co.	Mining	197,845.41	3,453.54	.0175	2
606	John Gray	Teaming	1,730.00	11.25	.0065	.....
1,011	Great Butte Copper Co.	Mining	55,313.38	967.98	.0024	.....
1,311	Great Falls Ice & Fuel Co.	Ice	10,927.50	150.25	.0137	2
1,607	C. H. Green	Mining	15,910.25	151.15	.0095	.....
933	Grenier Brothers	Road Work	2,820.50	29.00	.0124	.....
718	Gronberg & Fisher	Butcher	4,821.00	31.34	.0065	.....
898	J. A. Gudgel & Co.	Road Work	2,138.83	16.04	.0075	.....
1,140	Steve Gullio	Mining	3,830.00	58.28	.0175	.....
1,156	Peter R. Gulliot	Cleaning and Dyeing	403.80	8.23	.0079	.....
1,069	Joseph Gussenhoven	Mining	4,353.16	67.56	.0155	2
316	Guthrie, Riley & Co.	Contractor	30,169.39	459.25	.0152	.....
1,366	A. Guthrie & Co.	Contractor	7,249.52	107.19	.0147	.....
623	F. M. Haas	Contractor	2,700.00	20.25	.0075	.....
837	Henry J. Hamill	Contractor	21,833.53	364.91	.0171	.....
1,278	Hammond Print Shop	Printing	2,644.25	8.59	.0032	.....
574	Morris Hanson	Contractor	680.00	7.82	.0115	.....
884	Henry M. Hanly	Plumbing	2,782.00	26.43	.0095	.....
704	Chas. Henson & Co.	Painting	3,582.63	41.52	.0115	.....
118	J. Fred Harrison	Teaming	250.00	1.63	.0065	.....
1,393	Harry L. Hanson	Plumbing	10,896.31	103.52	.0095	.....
953	Morris Hanson	Contractor	1,400.00	22.75	.0162	.....
627	Hanson Bros. Lumber Co.	Lumber	1,85.00	.64	.0075	.....
89	Hansen & Haug	Contractor	1,107.00	8.30	.0075	.....
1,138	Hardin Elec. Light & Power Co.	Power House	2,194.90	84.42	.0162	.....
1,36	Harlem Citizens Electric Co.	Power Plant	5,049.00	33.30	.0162	.....
1,348	J. F. Harrington	Contractor	2,322.91	52.37	.0022	1
	Hathaway Grain Co.	Elevator	200.00	1.50	.0075	.....

PAYROLLS FOR YEAR ENDING DECEMBER 31ST, 1918—(Continued).
Plan No. 3.

Number	Name of Employer	Nature of Business	Total Payrolls	Total Premium	Average Rate	Accidents Yr. Ending July 31, 1913
896	Caesar Haverlandt	Contractor	5,827.30	91.44	.0162	—
164	Havre Bottling Works	Bottling	2,887.00	21.65	.0074	—
1,209	Havre Brick Co.	Brick Mfr.	4,667.35	42.01	.0090	—
1,434	Havre Mills Co.	Flour Mill	2,055.00	16.44	.0080	1
1,386	Havre Natural Gas Co.	Drilling for Gas	1,996.35	14.97	.0075	—
1,482	Havre Steam Laundry	Laundry	11,640.00	93.12	.0080	1
1,246	J. B. Heavlin	Sheet Metal Works	2,099.35	39.36	.0187	—
1,721	Frank N. Heckman	Laundry	2,662.28	21.30	.0080	—
1,554	L. C. Heckson	Butcher	1,365.00	8.87	.0065	3
1,802	Helena Machinery & Junk Co.	Junk Dealers	6,498.52	146.22	.0225	1
1,381	Helena Meat Co.	Butcher	6,700.00	67.00	.0100	3
1,688	Heron Lumber Co.	Lumber	76,752.84	1,055.35	.0137	—
224	C. B. Hetzer	Contractor	168.00	1.60	.0095	1
1,283	John Hexem	Contractor	2,986.91	22.40	.0074	—
1,185	Edward J. Hickey	Mining	2,538.00	44.42	.0175	—
1,045	Hickey Kroger Leasing Co.	Mining	41,582.45	727.69	.0174	—
1,329	Hill County Creamery Co.	Creamery	6,699.00	46.90	.0070	1
1,135	Lee Hilliard	Contractor	5,704.35	54.19	.0094	—
588	Lee Hofstad	Contractor	1,770.00	16.82	.0095	—
889	Walter I. Hogue	Contractor	2,778.35	35.33	.0127	—
683	C. R. Holmes	Logging	1,411.24	19.40	.0138	—
900	Holt Lumber Co.	Lumber	904.72	6.79	.0075	—
1,759	Home Independent Express	Teaming	4,576.73	29.75	.0065	—
1,362	Home Lumber & Coal Co.	Lumber	937.50	7.03	.0074	—
998	George E. Hopper	Contractor	8,477.30	127.16	.0150	1
1,207	G. R. Houtz	Printing	1,113.00	3.62	.0032	—
1,055	B. R. Hoyt	Drilling	6,798.00	50.99	.0075	—
1,139	Randolph R. Hoyt	Logging	9,192.93	126.40	.0137	—
1,100	Ferdinand Huth	Coal Mining	2,019.25	35.34	.0175	—
861	D. W. Hughes Lumber Co.	Lumber	6,336.28	47.52	.0174	—
967	W. W. Huhrelock	Threshing	649.50	8.12	.0125	—
1,034	J. P. Humphreys	Contractor	8,841.14	156.85	.0177	—
1,110	Hutchinson Lumber Co.	Lumber	10,192.61	136.76	.0134	8
1,103	Illinois Steel Bridge Co.	Bridge Contractor	4,698.47	105.72	.0225	1
783	Independent Electric Co.	Electric Supplies	2,692.80	20.20	.0075	—
720	Independent Ice Co.	Ice	2,265.00	31.14	.0137	—
858	Independent Publishing Co.	Coal Mining	6,237.00	109.15	.0175	1
346	Inter-Mountain Copper Mining Co.	Printing	47,270.16	163.63	.0032	1
859	Inter-Mountain Tel. & Elec. Co.	Mining	60,806.93	988.11	.0162	1
515	International Coal Co.	Telephone	1,210.38	19.67	.0162	3
1,327	Interstate Construction Co.	Coal Mining Contractor	114,939.19	2,011.44	.0175	—
			6,237.10	46.78	.0075	—

PAYROLLS FOR YEAR ENDING DECEMBER 31ST, 1918—(Continued).

Private Employers.

Plan No. 3.

Number	Name of Employer	Nature of Business	Total Payrolls	Total Premium	Average Rate	Accidents Yr. Ending July 31, 1919
469	Interstate Electric Co.	Elec. Power	801.00	13.02	.0162	—
1,269	Iron Clad Mining Co.	Mining	2,631.25	47.10	.0175	—
1,324	Iron Mask Syndicate	Mining	18,036.70	315.94	.0173	3
1,143	Iowa Bridge Co.	Bridge Construction	4,975.85	111.96	.0223	—
942	S. D. Isaacs	Logging	16,204.00	222.81	.0138	2
1,394	Jackman Coal Mining Co.	Coal Mining	4,124.13	72.77	.0175	2
516	Jackson and McLean	Contractor	8,539.94	138.77	.0162	—
769	A. J. Jamison	Saw Mill	188.00	2.35	.0125	—
1,037	Jardine Gold Mining & Milling Co.	Mining	44,353.73	776.19	.0024	1
1,035	Jennison Coal Mining Co.	Coal Mining	37,916.76	663.54	.0174	3
840	Jennison Light & Power Co.	Electric Power	5,509.43	89.93	.0162	—
1,341	Anton Jensen	Contractor	880.00	13.81	.0162	—
1,331	J. R. Jewell	Laundry	200.00	1.60	.0080	—
1,106	C. H. Johnson	Contractor	1,127.73	18.33	.0162	—
1,534	C. W. Johnson	Contractor	5,699.85	42.75	.0075	—
1,252	Elmer Johnson	Plumber	4,144.86	39.37	.0095	—
897	F. F. Johnson	Painter	2,152.69	17.94	.0083	—
774	Hugh Johnson	Contractor	576.49	9.37	.0162	—
356	Louis Johnson	Contractor	249.50	1.62	.0054	—
103	Joplin Grain Co.	Elevator	425.00	3.19	.0075	—
841	A. L. Jordan	Planing Mill	15,020.40	172.73	.0114	—
91	T. J. Jordan	Contractor	400.00	6.50	.0162	—
819	Judith Gap Transfer Co.	Teaming	4,005.00	26.03	.0064	—
1,272	Judith Milling Co.	Flour Mill	9,970.29	79.76	.0080	1
830	Kalspell Lumber Co.	Lumber	46,695.33	402.71	.0086	3
1,205	A. P. Kastler	Contractor	1,494.90	22.58	.0151	—
125	H. F. Hoffman	Painter	1,794.21	12.56	.0070	—
1,375	Hoffman & Huber	Painter	686.83	8.59	.0125	—
1,084	Joe Kavan	Contractor	6,295.00	40.92	.0065	—
1,151	C. H. Kelly	Contractor	11,118.69	105.63	.0095	—
686	P. Kelly	Contractor	9,257.31	138.86	.0150	—
345	Geo. W. Kemper	Contractor	12,475.80	202.73	.0162	3
1,186	Kendall Leasing Co.	Mining	14,740.20	257.95	.0174	3
832	Kenkel Condon and Ledbetter	Mining	9,884.85	172.99	.0175	—
908	Kinney and Kinney	Saw Mill	2,190.04	27.38	.0125	—
912	Keynote Dev. Co.	Mining	330.00	5.78	.0175	—
1,378	Charles Kirk	Contractor	397.50	6.46	.0162	—
1,300	Knapp Transfer Co.	Dredging	2,711.55	17.63	.0065	1
1,172	Knott and Thompson Merc. Co.	Non-hazardous	2,765.00	6.91	.0024	—
1,354	August Kirk	Threshing	657.00	8.21	.0124	—
1,250	A. H. Kuykendall	Plumber	500.00	4.75	.0095	—
1,384	Kraatz and Ringer	Contractor	2,093.10	47.21	.0225	1

INDUSTRIAL ACCIDENT BOARD

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PAYROLLS FOR YEAR ENDING DECEMBER 31ST, 1918—(Continued).
Private Employers. Plan No. 3.

Number	Name of Employer	Nature of Business	Total Payrolls	Total Premium	Average Rate	Accidents Yr. Ending July 31, 1919
483	Krotfganz and Frank.....	Contractor	18,825.75	343.87	.0182	1
162	Frank Kyle.....	Teaming	3,628.50	23.59	.0065	.....
869	James H. Lackey.....	Contractor	1,031.60	16.76	.0162	.....
92	John C. Lagerquist.....	Planing Mill	4,060.30	46.69	.0114	1
661	C. W. Laird.....	Contractor	1,545.50	23.93	.0154	.....
1,139	Mary E. Lalor.....	Mining	82,792.01	1,448.86	.0175	.....
1,161	Lambert Auto & Tractor Co.....	Garage	3,664.31	23.82	.0065	.....
1,308	E. A. Lammers.....	Contractor	231.00	1.73	.0074	.....
1,308	Walter E. Lamport.....	Teaming	600.00	3.90	.0065	.....
1,023	H. G. Lantis.....	Saw Mill	1,469.95	19.51	.0132	.....
1,317	W. E. Larsen.....	Mining	6,170.00	107.97	.0175	.....
792	La Salle Mining & Dev. Co.....	Mining	280.00	4.90	.0175	2
911	Harry Latchem.....	Logging	19,240.99	245.95	.0127	.....
1,179	J. P. Latch.....	Mining	3,500.00	61.35	.0175	.....
1,226	Laurel Lumber Co.....	Mining	1,110.00	8.33	.0075	.....
1,929	John Laux.....	Saw Mill	6,646.05	83.08	.0125	.....
856	H. W. Lawrence.....	Painter	4,367.54	42.05	.0096	.....
864	Lease and Derrer.....	Contractor	379.00	6.16	.0162	.....
1,110	Lease and Richards.....	Contractor	30,995.00	562.04	.0181	4
1,779	J. J. Lebert.....	Ice Plant	3,528.85	48.52	.0137	.....
1,312	Lee and Herfert.....	Contractor	6,352.00	110.59	.0174	.....
498	Legal Tender Mines Co.....	Mining	5,707.84	99.89	.0175	4
970	Julius Lehrkind.....	Brewery	20,854.52	156.41	.0075	.....
692	Lemax Construction Co.....	Contractor	959.79	15.60	.0162	.....
1,157	Louis Lipp.....	Contractor	2,149.50	16.12	.0074	.....
1,136	Ralph Levi.....	Logging	9,674.25	119.89	.0123	.....
1,138	Fred Lewis.....	Butcher	1,818.00	11.82	.0065	1
1,228	Lewis Grain Co.....	Elevator	4,145.00	31.09	.0075	.....
1,241	Lewistown Concrete Culvert Co.....	Culvert Mfg.	4,885.09	100.91	.0225	.....
1,475	Lewistown Concrete Supply Co.....	Gravel Pit	1,392.30	17.40	.0125	.....
1,144	Lewistown Iron Works.....	Foundry	341.15	3.41	.0100	.....
1,144	Libby Elec. Light & Power Co.....	Elec. Power	2,405.00	39.08	.0162	.....
13	Libby Times.....	Printing	1,640.00	5.33	.0032	.....
948	Liberty Oil and Gas Co.....	Well Drilling	13,487.65	101.16	.0075	.....
478	Lincoln Logging & Lumber Co.....	Logging	750.00	7.50	.0100	.....
52	Lincoln Wagon Co.....	Saw Mill	1,551.19	19.39	.0125	.....
1,064	Robert Lindborg.....	Mining	2,885.50	50.50	.0175	1
1,163	Peter Linden.....	Ice Plant	2,167.25	29.80	.0138	.....
1,727	Peter Listerud.....	Mining	998.50	17.39	.0175	.....
1,276	John Listerud.....	Power Plant	2,585.00	42.00	.0162	.....
496	Livingson Publishing Co.....	Printing	20,725.91	67.36	.0032	.....
1,268	Lockwood Irrigation District.....	Water Plant	1,775.81	16.87	.0094	.....

PAYROLLS FOR YEAR ENDING DECEMBER 31ST, 1918—(Continued).

Private Employers. Plan No. 3.

Number	Name of Employer	Nature of Business	Total Payrolls	Total Premium	Average Rate	Accidents Yr. Ending July 31, 1919
850	Logan and Mullison.....	Contractor	4,609.09	24.00	.0052	.....
812	Fred M. Loraine.....	Painting	747.00	9.34	.0125	.....
1,328	M. S. Lord.....	Contractor	8,839.75	160.09	.0181	.....
1,322	Reuben S. Lord.....	Contractor	692.41	11.25	.0162	.....
1,600	Lord Construction Co.....	Contractor	9,999.76	234.99	.0235	.....
1,057	Lowman and Benson.....	Saw Mill	1,132.25	15.57	.0138	.....
1,313	Ludvig S. Mussigbrod.....	Mining	2,775.75	48.58	.0175	.....
1,654	Lukens Hazel Mining Co.....	Mining	16,059.25	281.04	.0175	1
1,411	A. A. Lundgren.....	Painting	241.25	3.02	.0125	1
1,763	N. A. Lung.....	Contractor	3,356.86	42.35	.0126	.....
1,401	George Lunn.....	Painting	749.59	9.37	.0125	.....
1,346	Frank J. Lyons.....	Mining	509.60	8.92	.0175	.....
1,296	Norman R. MacDonald.....	Butcher	1,550.00	10.08	.0065	.....
1,171	Nacho and Mitchell.....	Butcher	1,682.98	16.83	.0100	.....
1,357	Cecil C. Mack.....	Coal Mining	7,295.12	136.09	.0175	.....
24	Macklon Coal Co.....	Coal Mining	10,007.24	175.13	.0175	3
1,279	Madison Land & Irrigation Co.....	Contractor	420.00	6.30	.0150	.....
2	J. C. Maguire.....	Contractor	3,873.86	29.05	.0074	.....
1,298	B. D. Mahan.....	Painting	6,852.92	56.25	.0082	.....
1,385	Fred K. Main.....	Painting	941.17	8.78	.0093	.....
1,385	Mailestie Bottling Co.....	Bottling	4,602.00	94.52	.0075	.....
1,184	Malta Light & Power Co.....	Electric Power	6,124.20	99.52	.0162	.....
1,123	Manhattan Maltng Co.....	Elevator	8,663.55	64.98	.0075	.....
1,222	Mann Lumber Co.....	Lumber	156,946.77	1,784.40	.0113	24
1,022	Frank Marks.....	Mining	194.40	3.40	.0175	.....
1,234	E. Broox Martin.....	Contractor	6,121.64	99.48	.0162	.....
209	Marquardt Bros. Lbr. Co., Hot Springs	Lumber	8,217.33	109.44	.0128	.....
209	Marquardt Bros. Lbr. Co., Pablo.	Lumber	5,150.00	80.44	.0156	6
795	B. J. Martin.....	Contractor	1,249.50	20.30	.0162	.....
1,052	E. E. Matthews.....	Contractor	3,576.00	28.61	.0080	.....
1,119	Mauren and Young.....	Contractor	1,783.40	28.98	.0162	1
1,086	Richard McCordly.....	Mining	1,830.00	14.53	.0175	.....
1,620	McCullough Electric Co.....	Electric Supplies	2,161.58	16.21	.0075	.....
935	J. McCormott & Sons.....	Coal Mining	6,559.52	114.80	.0175	.....
1,099	McElroy & Homenen.....	Contractor	10,427.02	78.20	.0074	4
46	McLaughlin & O'Neill.....	Contractor	15,427.05	232.16	.0150	2
744	Clifford McLeod.....	Contractor	9,775.80	32.21	.0080	.....
1,133	Thos. McMaton.....	Contractor	2,330.88	32.05	.0137	1
8	W. P. McManamy.....	Logging	4,338.80	62.53	.0129	.....
927	George McMillen.....	Logging	13,027.00	126.12	.0137	.....
922	John McNulty.....	Mining	9,806.55	171.62	.0175	.....
941	Dan McQuarrie.....	Logging	91,988.17	1,224.44	.0133	3

INDUSTRIAL ACCIDENT BOARD

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PAYROLLS FOR YEAR ENDING DECEMBER 31ST, 1918—(Continued).

Private Employers.

Plan No. 3.

Number	Name of Employer	Nature of Business	Total Payrolls	Total Premium	Average Rate	Accidents Yr. Ending July 31, 1919
469	Medicine Lake Electric Co.	Electric Power	858.50	13.95	.0162	
124	B. P. Melchert	Contractor	20,500.00	194.75	.0095	2
333	M. L. Mereness	Contractor	574.80	9.34	.0162	
479	G. W. Merkle	Coal Mining	278,297.40	4,870.20	.0174	3
1,219	M. H. Merriman	Planing Mill	2,568.85	29.54	.0114	1
16	Robert Metcalf	Contractor	47,468.24	308.54	.0065	
1,198	G. A. Meyers	Contractor	3,655.25	34.72	.0095	
1,334	Miles City Creamery Co.	Creamery	2,183.00	15.28	.0069	
1,146	Billy Miles and Bro.	Elevator	2,305.00	15.18	.0065	
1,046	Milk River Coal Co.	Coal Mining	16,662.25	291.59	.0175	2
886	Milk River Elevator Co.	Elevator	5,737.00	43.03	.0075	
829	W. B. Millard	Lumber	1,921.90	14.41	.0074	
465	Millard Coal Co.	Mining	1,339.94	5.95	.0175	
842	C. J. Miller	Coal Mining	6,268.70	109.70	.0175	1
1,175	J. D. Miller	Contractor	1,311.38	21.31	.0162	
1,001	Jesse G. Miller	Livery Stable	18,863.40	122.61	.0065	
1,597	J. J. Miller	Mining	1,567.50	27.59	.0175	
1,293	J. T. Miller	Livery Stable	2,000.00	13.00	.0065	
728	W. D. Miller	Contractor	200.00	3.95	.0162	
1,180	S. W. Milleson	Printing	940.00	3.06	.0032	
1,371	Mines Operating Co.	Saw Mill	650.75	8.13	.0121	1
476	Gust Minter	Painting	22,860.56	400.63	.0175	1
843	Mission Range Power Co.	Power Plant	2,814.10	97.02	.0065	
71	Missoula Laundry Co.	Laundry	5,888.32	65.69	.0162	
735	Missoulian Publishing Co.	Printing	13,926.06	60.34	.0043	
1,148	Missouri Mining Co.	Mining	98,120.80	218.89	.0032	1
1,167	Molybdenum Metals Corporation	Mining	13,371.12	233.93	.0145	
1,397	Moccasin Farmers Elevator Co.	Elevator	7,788.00	12.40	.0155	
1,382	Monaweek & Mantner	Coal Mining	2,000.00	15.00	.0075	
1,885	Montana Equity Elevator Co.	Elevator	8,809.93	77.47	.0174	1
1,075	Montana Cons. Copper Co.	Mining	27,302.00	473.37	.0155	
1,351	Montana Gold Mines	Mining	1,825.15	183.93	.0054	2
1,117	Montana Logging Co.	Logging	95,234.10	1,116.13	.0122	
1,398	Montana Meat Co.	Butcher	8,537.74	93.24	.0099	1
1,238	Montana Mines & Metals Co.	Mining	3,657.95	94.68	.0145	1
1,340	Montana Printing Co.	Printing	8,892.74	52.70	.0032	1
814	Montana States Mining Co.	Mining	1,348.73	27.10	.0174	
17	Montana Transfer Co.	Transfer	20,154.32	348.39	.0160	1
1,229	Montana Western Lumber Co.	Lumber	37,154.32	348.84	.0162	4
	Montgomery & Son	Contractor	7,858.07	127.69	.0162	
	N. J. Montgomery	Drainage	3,071.47	19.96	.0065	

FOURTH ANNUAL REPORT

PAYROLLS FOR YEAR ENDING DECEMBER 31ST, 1918—(Continued).

Private Employers.

Plan No. 3.

Number	Name of Employer	Nature of Business	Total Payrolls	Total Premium	Average Rate	Accidents Yr. Ending July 31, 1919
33	W. M. Montgomery & Co.	Packing House	15,818.50	158.19	.0100	.....
865	Moon Creek Co-operative Co.	Saw Mill	4.80	4.80	.0070	.....
698	Morin Lumber Co.	Lumber	1,814.65	12.91	.0071	.....
553	Jas. B. Morrison	Contractor	2,266.00	4.32	.0162	.....
892	Morrow Lumber Co.	Lumber	2,700.00	20.93	.0075	.....
669	Morton and Cunningham	Contractor	16,784.38	247.98	.0147	.....
1,404	G. M. Moss	Printing	16,460.00	1.50	.0032	.....
1,187	Motor Service Sales Co.	Garage	15,682.08	95.73	.0061	.....
950	Mountaineer Welding Co.	Welding	1,585.25	71.89	.0075	.....
106	Wm. S. Musgrove	Contractor	1,594.40	14.67	.0094	.....
473	Naegele Printing Co.	Printing	11,171.07	36.31	.0032	.....
6	G. H. Nash	Contractor	1,052.99	48.83	.0250	.....
1,077	National Coal Mining Co.	Coal Mining	77,357.19	1,853.75	.0175	.....
815	National Elec. Supply Co.	Electric Supplies	5,915.50	94.27	.0075	.....
981	Neenan Leasing Co.	Mining	1,170.00	20.48	.0100	.....
233	Neithammer Brothers	Butcher	16,425.00	164.25	.0100	.....
1,407	L. V. Nelson	Saw Mill	626.37	11.98	.0195	.....
1,368	N. P. Nelson	Contractor	613.87	11.98	.0195	.....
1,067	Nelson Coal Co.	Coal Mining	476,955.89	8,346.73	.0175	.....
1,068	Nelson and Pederson	Contractor	59,015.90	970.69	.0161	.....
930	L. C. Newton	Mining	1,590.49	27.83	.0175	.....
1,204	New York-Montana Mines Co.	Mining	6,882.10	120.44	.0175	.....
1,389	New York-Mont. Test. & Eng. Co.	Milling	35,797.74	447.47	.0174	.....
1,163	Nelson and Kordus	Contractor	386.10	5.79	.0149	.....
1,323	C. P. Nilson	Contractor	1,468.23	13.95	.0093	.....
1,660	Gust Nordquist	Contractor	2,484.00	45.57	.0183	.....
1,398	Norwegian American Oil Co.	Contractor	2,300.58	57.51	.0249	.....
754	Northern Transfer and Storage	Drilling for Oil	2,622.50	19.67	.0075	.....
1,363	Joseph D. Norwell	Non-hazardous	5,205.00	33.83	.0065	.....
1,365	J. Sam Norwood	Laundry	600.00	3.90	.0065	.....
1,393	Jas. W. Nugent	Dravage	1,544.00	12.35	.0079	.....
1,217	Oakes and Blackburn	Contractor	7,307.50	47.50	.0065	.....
1,195	M. D. O'Connell	Contractor	653.08	8.98	.0137	.....
1,153	Neil O'Donnell	Contractor	7,771.30	125.37	.0161	.....
1,162	Michael J. O'Farrell	Mining	509.00	3.82	.0075	.....
1,229	Ogle Hardware Co.	Hardware Dealers	18,528.20	324.24	.0174	.....
1,083	Olander Manufacturing Co.	Manufacturing	4,023.85	38.23	.0095	.....
1,406	Chris Olson	Contractor	1,910.70	14.32	.0075	.....
703	Geo. B. Olson	Contractor	2,650.00	19.88	.0075	.....
14	O'Neil Lumber Co.	Lumber	1,989.00	25.98	.0130	.....
883	E. F. O'Neil	Road Work	6,731.40	55.70	.0082	.....
			350.00	3.33	.0095	.....

PAYROLLS FOR YEAR ENDING DECEMBER 31ST, 1918—(Continued).

Private Employers. Plan No. 3.

Number	Name of Employer	Nature of Business	Total Payrolls	Total Premium	Average Rate	Accidents Yr. Ending July 31, 1919
424	James O'Neill	Contractor	2,112.50	34.33	.0162	.....
1,168	William O'Neill	Laundry	3,156.00	25.25	.0080	.....
1,592	O'Neill and Carr	Coal Mining	29,594.84	517.91	.0175	1
1,370	Orofino Leasing Co.	Mining	2,408.75	42.15	.0174	.....
1,195	David A. Orr	Plumbing	1,597.98	15.18	.0095	.....
1,170	W. H. Otis	Drayage	845.00	5.49	.0065	.....
1,160	Quality Printing Co.	Printing	190.00	.62	.0032	.....
1,254	Painted Robe Coal Co.	Coal Mining	5,136.72	90.77	.0175	1
134	John M. Palmer	Threshing	7,977.58	12.22	.0125	.....
577	Park Milling Co.	Milling	7,493.01	59.94	.0080	.....
1,277	Thos. W. Parker	Mining	3,007.25	52.63	.0175	.....
1,178	J. C. Parks	Drayage	3,075.00	19.99	.0065	.....
1,818	E. W. Paterson	Mining	6,875.25	120.32	.0175	.....
1,233	Robert Pauline	Quarrying	486.75	6.70	.0138	.....
1,432	Edwin T. Patrick	Laundry	721.95	5.78	.0080	.....
574	Clyde Patton	Quarrying	213.50	2.94	.0137	.....
570	Paul J. Peck	Elevator	650.00	4.88	.0075	.....
1,020	Paul J. Peck Bldg. Co.	Contractor	452.30	7.35	.0162	.....
1,164	A. B. Paxton	Contractor	868.50	61.51	.0075	.....
1,044	Ike Peacock Co.	Blacksmith	1,014.00	7.61	.0075	.....
1,286	Peace Coal Co.	Coal Mining	64,439.04	1,127.68	.0175	3
788	Ralph B. Peck & Co.	Retail Coal	681.00	4.43	.0065	.....
943	Peelless Coal Mining Co.	Coal Mining	2,975.00	22.13	.0075	.....
1,124	Peoples Ice Co.	Ice Dealers	4,901.50	85.78	.0175	.....
20	O. B. Peppard	Contractor	15,776.71	216.93	.0137	1
189	Perry E. Pheid	Logging	3,264.15	28.81	.0138	.....
82	Wallace T. Perham	Bricks	2,095.00	28.81	.0138	.....
892	Chas. F. Perry & Co.	Manufacturing	7,924.13	149.58	.0188	2
1,158	Perry Eck Fuel Co.	Retail Coal	21,659.16	151.61	.0069	.....
1,410	Albert J. Pettibone	Painting	9,874.48	94.79	.0095	.....
289	George H. Few	Contractor	249.00	3.11	.0125	.....
844	Fred Pfeiffer	Garage	10,805.01	175.58	.0162	1
485	James F. Phillips	Contractor	1,684.32	10.95	.0065	1
1,449	Philpsburg Mining Co.	Mining	1,545.35	11.59	.0074	.....
509	Pilgrim Mining Co.	Contractor	1,120.50	10.64	.0094	.....
871	Pioneer Placer Mining Co.	Mining	552,001.40	9,513.05	.0172	42
1,309	Piper Construction Co.	Mining	87,923.28	1,273.51	.0144	.....
396	Pitt Copper Mining Co.	Mining	2,464.25	43.12	.0175	.....
784	Pitt Copper Mining Co.	Contractor	10,876.95	180.86	.0166	1
1,176	Pittsburg Filter Mfg. Co.	Mining	3,615.00	63.26	.0174	.....
1,353	Frank Pival	Filter Installing Contractor	3,208.90	35.30	.0110	.....
			1,033.00	16.79	.0162	.....

PAYROLLS FOR YEAR ENDING DECEMBER 31ST, 1918—(Continued).

Private Employers. Plan No. 3.

Number	Name of Employer	Nature of Business	Total Payrolls	Total Premium	Average Rate	Accidents Yr. Ending July 31, 1919
980	Plains Montana Mills	Milling	1,006.50	8.05	.0080	—
733	Pleantywood Electric Co.	Power Plant	4,013.30	65.22	.0162	—
507	J. D. Plovnick	Coal Mining	1,502.87	26.30	.0175	—
1,270	Pomeroy Vreeland	Contractor	1,652.97	11.95	.0183	—
602	Porphyry Dike Gold Mining Co.	Mining	6,751.35	118.15	.0175	1
603	T. C. Power Motor Car Co.	Garage	34,278.57	222.81	.0065	1
467	Powers Transfer Co.	Drivage	2,662.90	17.31	.0065	—
1,258	William R. Price	Mining	1,091.50	19.10	.0094	—
1,211	William Pritchard	Plumbing	1,445.75	13.73	.0094	—
1,329	S. C. Purdy	Mining	2,000.00	25.00	.0125	—
1,314	Purity Dairy Products Co.	Creamery	3,559.65	24.86	.0069	—
1,041	Pyrenee Lease	Mining	10,961.89	191.88	.0175	—
1,173	Rabden Mining Co.	Mining	2,384.70	41.73	.0174	—
1,693	D. E. Rainville	Mining	2,646.00	11.31	.0175	—
1,268	Rajoite, Fohert and Winters	Contractor	22,684.50	411.40	.0172	4
1,213	Alfred C. Ray	Mining	5,420.75	93.86	.0175	—
1,626	Red Lodge Pickett	Printing	2,765.20	8.69	.0032	—
1,112	Redstone Coal Mining Co.	Coal Mining	5,030.28	88.03	.0175	—
1,111	Wm. C. Reed	Contractor	3,178.30	167.56	.0185	1
364	Reservation Land & Lumber Co.	Lumber Mfg.	1,674.35	7.75	.0115	—
42	Revere Cons. Gold Mines	Mining	1,218.00	21.32	.0175	—
1,090	Rhodes and Coram	Blacksmith	1,248.00	3.84	.0072	—
1,235	Nicholas R. Ringeling	Saw Mill	1,249.92	15.02	.0125	—
1,703	Riverside Foundry	Welding	3,502.47	32.73	.0174	—
970	J. D. Robinson	Traying	2,944.75	31.42	.0169	—
408	Rock Rose Milling & Mining Co.	Mining	2,536.00	14.86	.0059	—
1,082	B. M. Rogers	Contractor	13,306.50	251.11	.0137	—
730	Romek and Klimas	Coal Mining	1,440.70	25.21	.0174	—
587	S. M. Roode	Contractor	3,559.00	62.11	.0162	—
536	Rose Cons. Mining Co.	Mining	1,256.75	21.89	.015	—
1,345	Rosignal and Clark	Lumber Mfg.	3,525.31	350.97	.0137	—
656	K. K. Ross	Logging	2,362.47	32.48	.0137	—
827	Roundup Electric Co.	Electric Power	2,080.00	15.45	.0075	—
495	Roundup Tribune Co.	Printing	6,084.25	13.77	.0032	—
492	Ruby Gulch Mining Co.	Mining	92,739.80	1,463.77	.0157	3
43	J. H. Rule	Teaming	6,492.00	32.70	.0065	—
545	W. E. Russell	Saw Mill	25.98	25.98	.0125	—
407	John J. Ryan	Logging	77,442.72	870.58	.0112	2
1,218	Rymker Winter	Roofing	1,660.00	10.79	.0065	—
608	Saco Co-Operative Assn.	Elevator	437.53	8.20	.0187	—
1,206	Sheet Metal Works	Elevator	1,556.85	11.68	.0075	—

PAYROLLS FOR YEAR ENDING DECEMBER 31ST, 1918—(Continued).

Private Employers.

Plan No. 3.

Number	Name of Employer	Nature of Business	Total Payrolls	Total Premium	Average Rate	Accidents Yr. Ending July 31, 1919
47	F. D. Sayrs.....	Contractor	132.25	2.15	.0162	.....
1,256	Emil Schaffner.....	Contractor	163.00	2.65	.0162	.....
363	Schandel Brothers.....	Threshing	1,770.00	20.69	.0116	.....
1,153	Elmer Schersick.....	Contractor	46.25	7.75	.0162	.....
1,174	L. L. Schlyer.....	Saw Mill	3,796.92	46.59	.0125	.....
422	H. Schoenfeld.....	Plumbing	1,011.10	7.58	.0074	.....
1,420	William Schogel.....	Saw Mill	835.10	17.34	.0125	.....
1,038	John Fred Schwiers.....	Garage	2,038.88	19.35	.0095	.....
1,281	Samuel L. Schwartz.....	Mining	3,210.00	59.35	.0175	.....
249	Scobey Elec. Light Co.....	Electric	3,210.00	17.26	.0152	.....
1,221	Scratchall Mining Co.....	Mining	6,984.50	76.23	.0115	.....
779	Frank Sears.....	Lumber	6,153.14	15.81	.0134	.....
965	Security Bridge Co.....	Lumber	1,150.60	15.52	.0137	.....
137	John Shadvan & Co.....	Bridge Construction	79,035.64	1,893.52	.0240	1
1,112	E. A. Shaw.....	Mining	1,939.00	10.49	.0125	1
1,049	Sheep Shearers Com. & Merc. Co.....	Handling Machinery	1,912.00	33.99	.0175	.....
1,003	Shelby J. Gish.....	Mining	3,177.82	23.83	.0074	.....
1,413	Sheridan Electric Co.....	Electric Supplies	1,280.00	22.40	.0175	.....
947	James S. Sherry.....	Contractor	715.30	11.63	.0162	.....
494	The Sherwood Co.....	Plumbing	3,363.06	54.65	.0162	.....
1,399	Shiner Kelly Furn. Exchange.....	Garage	370.55	9.22	.0094	1
658	Sickler Motor Sales Co.....	Non-hazardous	34,687.78	86.72	.0025	.....
1,054	Sidney Ice Co.....	Ice Dealers	13,184.04	85.70	.0065	.....
549	Sidney Bow Roads Assn.....	Contractor	3,067.65	42.18	.0137	.....
306	Silver Pissure Mining Co.....	Mining	2,050.85	19.57	.0095	2
1,320	The Silver State.....	Printing	57,488.91	10.42	.0032	.....
235	Z. B. Silver.....	Garage	3,265.91	28.98	.0094	.....
719	John Sisko.....	Contractor	4,459.02	28.98	.0064	.....
438	Frank J. Slick.....	Saw Mill	886.00	14.40	.0162	.....
770	Smith and Poland.....	Mining	2,164.70	59.21	.0124	1
1,167	Grant Smith & Co., St. Paul.....	Contractor	148,549.30	37.88	.0175	.....
1,189	Grant Smith & Co., Spokane.....	Contractor	95,746.18	2,748.93	.0185	.....
344	J. S. Smith, Ast.....	Mining	2,470.00	1,516.90	.0158	.....
756	Walter S. Smith.....	Non-hazardous	2,848.00	43.23	.0175	1
743	Smith and Campbell.....	Lumber	2,927.75	7.12	.0025	.....
743	Smith and Campbell.....	Lumber	9,242.60	33.67	.0115	.....
964	Smith Tyner Co.....	Transfer	4,023.41	115.53	.0125	.....
1,220	Smokeless and Soorless Coal Co.....	Flour Mill	5,830.00	26.15	.0065	.....
1,015	Snow Storm Mines Co.....	Coal Mining	121,987.21	46.65	.0050	8
1,301	Snowy Mountains Dev. Co.....	Mining	148,993.26	2,434.78	.0175	32
966	Snowy Mountains Dev. Co.....	Coal Mining	2,829.12	2,329.12	.0156	.....
			2,884.15	49.95	.0175	.....

PAYROLLS FOR YEAR ENDING DECEMBER 31ST, 1918—(Continued).

Private Employers. Plan No. 3.

Number	Name of Employer	Nature of Business	Total Payrolls	Total Premium	Average Rate	Accidents Yr. Ending July 31, 1919
1,210	Soden and Heyn.	Contractor	2,991.78	28.42	.0094	.....
1,241	Sound Construction & Eng. Co.	Contractor	17,913.90	291.10	.0162	2
31	J. T. Spencer.	Printing	1,222.00	3.97	.0032	.....
883	William Spieth.	Elec. Contractor	1,421.55	10.66	.0074	.....
855	Stansby & Latham Coal Co.	Coal Mining	3,940.06	68.95	.0174	.....
1,417	Standard Construction Co.	Contractor	7,099.02	79.13	.0111	1
1,697	Star Coal Co.	Coal Mining	75,277.51	1,917.36	.0032	1
23	State Publishing Co.	Printing	14,817.04	48.15	.0032	.....
1,338	L. B. Stebbins.	Threshing	655.00	8.19	.0125	.....
1,263	Steele and Company	Teaming	1,890.00	12.29	.0065	.....
1,089	Stephenson Lumber Co.	Lumber	9,639.84	68.92	.0071	1
1,200	Stevensville Steam Laundry	Laundry	381.00	3.57	.0080	.....
1,108	Stillwater Irrigation Co.	Irrigation	376.10	3.57	.0095	.....
1,288	H. M. Stevenson.	Lumber	3,215.73	44.22	.0137	1
439	St. James Hospital.	Non-hazardous	11,542.65	28.86	.0025	.....
470	George Stockhill	Contractor	2,198.85	35.73	.0162	.....
1,375	R. D. Stocking.	Contractor	487.40	4.63	.0094	.....
1,347	C. J. Stone.	Mining	380.23	6.65	.0174	.....
1,198	James Stonechest	Mining	3,773.85	45.29	.0120	.....
853	Frank Storer.	Logging	25,914.59	356.32	.0137	3
1,202	B. R. Streets	Painting	1,833.73	18.48	.0089	.....
1,534	Stringham and Marsaw	Logging	1,996.73	13.08	.0131	.....
1,373	John Sturrock Plumbing & Heating Co.	Plumbing	20,271.98	192.58	.0094	1
1,141	W. A. Sullivan	Contractor	1,425.73	24.58	.0172	.....
612	Summit Mining Co.	Mining	5,604.00	87.52	.0175	.....
851	Sunburst Trading Co.	Elevator	5,097.35	7.13	.0075	.....
1,350	Sun River Oil & Gas Co.	Oil Drilling	1,109.00	38.23	.0342	.....
1,129	George Swanstrom	Contractor	1,592.00	17.87	.0162	1
794	C. Swanz, Sr.	Blacksmith	532.00	4.01	.0074	.....
1,147	D. C. Sweeney.	Contractor	3,655.41	24.22	.0111	.....
1,903	Tamarack Mining Co.	Mining	2,354.00	41.20	.0175	.....
1,098	Wm. E. Taylor	Transfer	3,334.00	27.19	.0064	2
1,297	Terry Lumber & Coal Co.	Lumber Yard	4,861.15	7.13	.0075	.....
1,154	J. T. LaCasse.	Mining	1,846.50	13.45	.0075	.....
1,274	Thorvaldsen and Johnson.	Contractor	1,127.80	13.81	.0162	1
1,039	Three Buttes Copper Mining Co.	Mining	8,113.35	12.83	.0172	.....
1,247	Three Forks Mining Co.	Mining	707.98	12.83	.0175	.....
1,192	Three Forks Portland Cement Co.	Cement	3,250.00	26.88	.0120	7
902	H. S. Thurber Printing Co.	Printing	291,256.00	3,153.21	.0028	.....
497	C. F. Tillman.	Plumbing	5,093.05	16.55	.0032	.....
61	Wm. L. Tillman.	Contractor	2,999.95	28.30	.0095	.....
			1,666.35	15.83	.0095	.....

PAYROLLS FOR YEAR ENDING DECEMBER 31ST, 1918—(Continued)

Private Employers. Plan No. 3.

Number	Name of Employer	Nature of Business	Total Payrolls	Total Premium	Average Rate	Accidents Yr. Ending July 31, 1919
1,292	Town & Templeman Leasing Co.	Mining	4,121.35	51.52	.0125	—
1,769	Townsend Hardware & Imp. Co.	Non-hazardous	2,846.10	7.11	.0024	—
1,294	Triangle Oil & Gas Co.	Well Drilling	5,234.01	39.26	.0075	—
1,551	H. E. True.	Contractor	840.00	7.98	.0095	—
1,133	W. H. Tucker.	Laundry	412.45	3.30	.0080	—
1,018	Volume Copper Mining Co.	Mining	164,503.75	2,878.82	.0175	12
1,018	Walter L. Turk.	Logging	3,649.67	50.18	.0137	2
1,225	Turner Lumber Co.	Contractor	24,586.44	323.59	.0131	1
1,225	Two Miracle Concrete Co.	Contractor	35,914.18	364.59	.0101	5
1,190	Matt Ulrich	Well Drilling	133.75	1.00	.0075	—
1,132	Water Montana Light & Water Co.	Power Plant	41,635.63	395.54	.0095	2
1,409	Valley Townsite Co.	Mining	647.95	10.53	.0162	—
1,574	Valley Forge Mining Co.	Mining	4,825.50	84.45	.0175	1
1,203	Valley Mercantile & Lumber Co.	Lumber Yard	5,459.75	35.49	.0065	1
772	David Van Blaricom.	Coal Docks	19,056.85	76.23	.0040	—
791	Vandor Mining Co.	Mining	892.75	14.05	.0175	—
1,235	T. F. Van Dorn.	Mining	6,554.25	114.70	.0175	—
957	Van Laken Construction Co.	Contractor	30,734.40	447.97	.0145	3
128	Veatch Co.	Contractor	2,650.17	43.07	.0162	—
924	Vermilion Silver Lead Mining Co.	Mining	7,656.42	133.99	.0174	—
199	J. D. Waldron.	Elevator	900.00	6.75	.0075	—
1,111	Bert Walker	Logging	1,433.55	19.71	.0137	—
1,211	William Walker	Contractor	1,589.25	15.10	.0095	—
1,285	W. E. Walker.	Contractor	200.00	3.25	.0162	—
1,073	War Eagle Mining Co.	Mining	3,625.00	70.70	.0195	—
959	Warren Construction Co.	Contractor	37,056.25	335.29	.0090	8
110	Wausau Iron Works.	Bridge Building	2,061.00	46.37	.0225	—
732	N. B. Webb.	Contractor	1,221.05	27.47	.0225	—
1,369	Frank A. Weatherhead	Saw Mill	2,381.00	29.75	.0124	—
1,403	A. J. Weinberger.	Contractor	1,136.00	20.46	.0180	—
1,117	Chas. P. Wells.	Contractor	275.00	2.06	.0074	—
1,315	Wemple and Hottz	Contractor	70.00	1.14	.0162	—
45	Wendel Cannon Monument Works.	Stone Cutting	1,644.75	30.84	.0187	—
1,287	A. O. Westburg Lumber Co.	Saw Mill	3,682.60	46.03	.0125	—
1,382	Western Clay Mfg. Co.	Clay Products	19,263.52	173.37	.0089	—
22	Western Coal & Trans. Co.	Teaming	1,315.00	8.55	.0065	1
951	Western News	Printers	3,216.00	10.45	.0032	—
1,380	Western Ore & Mining Co.	Mining	289,557.54	5,067.43	.0174	5
555	West Park Plumbing & Heating Co.	Plumbing	2,108.51	20.03	.0094	—
879	West Side Coal Co.	Coal Dealers	16,378.12	106.46	.0065	—
1,349	West Side Lumber Co.	Lumber Yard	3,010.00	22.58	.0075	—
1,349	Western States Coal Co.	Coal Mining	9,380.81	164.16	.0175	—

PAYROLLS FOR YEAR ENDING DECEMBER 31ST, 1918—(Continued).

Private Employers. Plan No. 3.

Number	Name of Employer	Nature of Business	Total Payrolls	Total Premium	Average Rate	Accidents Yr. Ending July 31, 1919
1,388	Whaley Brothers	Logging	11,248.21	154.66	.0137	3
1,265	Wheatland Lumber Co.....	Lumber	400.00	3.00	.0075	.....
1,074	Charles T. White.....	Well Drilling	2,033.40	15.25	.0074	.....
1,133	R. J. White.....	Contractor	3,787.20	48.19	.0127	.....
1,500	White Construction Co.....	Contractor	6,319.30	93.48	.0147	.....
1,236	Whitehall Produce Co.....	Dairy Products	3,307.86	23.16	.0070	.....
1,342	Whitehorse Mining Co.....	Mining	33,263.33	582.11	.0175	1
1,804	C. H. Wicksell.....	Contractor	1,148.70	18.16	.0158	.....
155	Wilbur Transfer Co.....	Teaming	16,680.98	108.43	.0065	2
1,427	Percy Wilcox.....	Contractor	3,247.23	52.40	.0161	1
1,775	B. M. Williams.....	Well Drilling	156.00	1.17	.0075	.....
1,004	Willis Copper Mining Co.....	Mining	3,251.90	56.90	.0175	.....
1,752	Wilson and Company.....	Non-hazardous	20,948.80	52.37	.0025	.....
768	Windfall Placer Mining Co.....	Mining	175.50	3.07	.0174	.....
34	Oscar F. Wolf.....	Printing	651.97	2.12	.0032	.....
937	Wolvin and Prosser.....	Contractor	5,790.18	47.75	.0082	.....
1,260	Wood Placer Mining Co.....	Mining	1,715.24	30.02	.0175	.....
1,119	George Woody.....	Mining	1,612.75	28.22	.0175	.....
1,927	S. G. Wright.....	Threshing	732.00	9.15	.0125	.....
712	Wright & Edwards Mining Co.....	Mining	2,215.50	38.77	.0175	.....
1,277	L. G. Wynne.....	Contractor	2,450.00	4.28	.0095	.....
880	W. E. Wynne.....	Contractor	1,324.75	21.53	.0162	.....
1,239	Yellowstone Trail Garage.....	Garage	6,944.90	45.14	.0064	.....
236	Charles L. Yost.....	Blacksmith	1,053.00	7.98	.0075	.....
469	W. A. Young.....	Mining	398.75	6.98	.0175	.....
1,247	Froid Auto & Oil Co.....	Garage	2,242.50	14.38	.0065	.....
	California Road Oiling Co.....	Contractor	3,246.30	30.33	.0095	.....
			\$10,747,628.05	\$157,639.32	.0146	

DETAIL OF FATAL ACCIDENTS.

From June 30, 1918, to June 30, 1919.

PLAN NO. 1.

Date of Accident	Name of Deceased	Employer and Industry	Cause of Death	Award
July 2, 1918.	John Carabetos	A. C. M. Co.—Mining	Fall of rock	\$1,690.00
July 24, 1918.	Elmer F. Wade	A. C. M. Co.—Smelting	Electrocuted	No Dep.
July 27, 1918.	I. Gus Halonen	A. C. M. Co.—Mining	Fall of ground	\$3,380.00
Aug. 2, 1918.	Andrew Ness	A. C. M. Co.—Mining	Fall of ground	Unsettled
Aug. 3, 1918.	Tony E. Butler	Somers Lumber Co.—Saw Mill	Fall on revolving saw	Monthly
Aug. 3, 1918.	Chas. V. Warmkessel	North Butte Mining Co.—Mining	Fall of ground	\$3,380.00
Aug. 17, 1918.	Lars Rossebo	A. C. M. Co.—Smelting	Electrocuted	No Dep.
July 30, 1918.	Mike Jurisch	A. C. M. Co.—Mining	Electrocuted	No Dep.
Aug. 6, 1918.	Dominick Ardesso	A. C. M. Co.—Mining	Blasted	No Dep.
Aug. 7, 1918.	A. R. Reneger	A. C. M. Co.—Mining	Fell under car	\$3,380.00
Aug. 15, 1918.	Earl Ballinger	Montana Power Co.—Electric Power	Hit by automobile	Unsettled
Sept. 23, 1918.	Michael LaVoie	Somers Lumber Co.—Lumbering	Tree fell on him	No Dep.
Sept. 26, 1918.	Adolph Stack	Dover Lumber Co.—Lumbering	Tree fell on him	No Dep.
Sept. 4, 1918.	Anton Roszkowitz	Roundup Coal Mining Co.—Coal Mining	Fall of rock	No Dep.
Sept. 11, 1918.	John Nyback	Northwestern Improvement Co.—Coal Mng.	Runaway empty car	Monthly
Sept. 15, 1918.	Frank J. Collins	North Butte Mining Co.—Mining	Fell into chute	\$3,380.00
Sept. 17, 1918.	C. A. Wires	North Butte Mining Co.—Mining	Fell down chute	\$3,380.00
July 12, 1918.	George Brent	Anaconda Copper Mining Co.—Smelting	Dragged by car	\$3,380.00
Aug. 23, 1918.	Barney Grigoline	Roundup Coal Mining Co.—Coal Mining	Collision	Closed
Sept. 19, 1918.	Francis Dyer	Anaconda Copper Mining Co.—Mining	Cable broke	\$3,380.00
Sept. 24, 1918.	John M. Welsh	Anaconda Copper Mining Co.—Mining	Cable broke	\$3,380.00
Oct. 5, 1918.	Jim Kalloff	Anaconda Copper Mining Co.—Mining	Timber fell on head	No Dep.
Oct. 11, 1918.	Philip Caron	Anaconda Copper Mining Co.—Mining	Fall of ground	No Dep.
Oct. 13, 1918.	Richard E. Miller	Anaconda Copper Mining Co.—Smelting	Fell from elevator	\$3,380.00
Sept. 30, 1918.	Emery J. Cupples	Anaconda Copper Mining Co.—Mining	Timber struck head	\$3,380.00
Oct. 18, 1918.	Joe Markl	Anaconda Copper Mining Co.—Mining	Shot	\$3,380.00
Oct. 22, 1918.	Michael Doherty	Cottonwood Coal Co.—Coal Mining	Fall of rock	Unsettled
Oct. 29, 1918.	Pete Karine	Anaconda Copper Mining Co.—Mining	Head hit wall plate	No Dep.
Oct. 27, 1918.	Maurice Richards	Montana Coal & Iron Co.—Coal Mining	Caught between cars	No Dep.
Oct. 27, 1918.	William Storz	Anaconda Copper Mining Co.—Mining	Fall of rock	\$3,380.00
Nov. 6, 1918.	Herbert L. Tucker	Anaconda Copper Mining Co.—Mining	Fall of ground	No Dep.
Nov. 6, 1918.	Virgil M. Robinson	Anaconda Copper Mining Co.—Smelting	Arsene gas poison	\$3,380.00
Nov. 7, 1918.	Joseph G. Sells	Anaconda Copper Mining Co.—Smelting	Arsene gas poison	No Dep.
Nov. 10, 1918.	Robert McGee	Anaconda Copper Mining Co.—Smelting	Arsene gas poison	Monthly
Nov. 10, 1918.	William S. McCustian	Anaconda Copper Mining Co.—Mining	Fall of ground	\$1,690.00
Nov. 12, 1918.	John A. Chambers	Butte & Superior Mining Co.—Mining	Fall of ground	No Dep.
Nov. 12, 1918.	James Conroy	Butte & Superior Mining Co.—Mining	Fall of ground	\$3,380.00
Nov. 12, 1918.	Edwin B. Kelly	Butte & Superior Mining Co.—Mining	Fall of ground	No Dep.
Nov. 12, 1918.	Daniel J. Tracy	Anaconda Copper Mining Co.—Smelting	Arsene gas poison	\$3,380.00
Nov. 7, 1918.		Anaconda Copper Mining Co.—Smelting	Arsene gas poison	Monthly

DETAIL OF FATAL ACCIDENTS.

From June 30, 1918, to June 30, 1919.

PLAN NO. 1.

Date of Accident	Name of Deceased	Employer and Industry	Cause of Death	Award
Nov. 21, 1918.	Nestor Johnson	Anaconda Copper Mining Co.—Mining	Fall of ground.	\$3,380.00
Nov. 22, 1918.	Patrick J. Gibbons	North & Superior Mining Co.—Mining	Fell into chute.	No Dep.
Oct. 28, 1918.	John Norrigan	Butte Butte Mining Co.—Mining	Electrocuted	No Dep.
Nov. 23, 1918.	Pat Donovan	Anaconda Copper Mining Co.—Mining	Fall of rock	No Dep.
Nov. 24, 1918.	John Demeli	Anaconda Copper Mining Co.—Mining	Car ran over leg	No Dep.
Nov. 20, 1918.	William D. Miller	North Butte Mining Co.—Mining	Caught leg between cars	\$3,380.00
Dec. 6, 1918.	Harris Acoustes	Anaconda Copper Mining Co.—Mining	Fall of rock	No Dep.
Dec. 7, 1918.	F. F. Thiel	Anaconda Copper Mining Co.—Smelting	Crushed between cars	\$3,380.00
Dec. 9, 1918.	James H. Higgins	Anaconda Copper Mining Co.—Smelting	Electrocuted	\$3,380.00
Dec. 11, 1918.	Karl Baumgartner	Anaconda Copper Mining Co.—Mining	Buried in rock	\$3,380.00
Dec. 11, 1918.	John F. Leary	Anaconda Copper Mining Co.—Mining	Struck by moving fan rotary	No Dep.
Mar. 30, 1918.	Jacob Mihulish	Northwestern Improvement Co.—Coal Mng.	Run over by car	Monthly
Oct. 12, 1918.	Ed Thomas	Anaconda Copper Mining Co.—Mining	Caught in loose belt on shafting	\$3,380.00
Dec. 10, 1918.	Zennie Anderson	Anaconda Copper Mining Co.—Smelting	Caught by engine against wall	\$3,380.00
Dec. 16, 1918.	Pat Lacey	Anaconda Copper Mining Co.—Smelting	Caught arm between belt and pully	\$3,380.00
Jan. 4, 1919.	Frank McTague	North Butte Mining Co.—Mining	Fall of ground	Unsettled
Jan. 7, 1919.	Anon Pack	Montana Coal & Iron Co.—Coal Mining	Fall of rock	No Dep.
Jan. 8, 1919.	Dominikus Dehner	Anaconda Copper Mining Co.—Mining	Fall of rock	No Dep.
Jan. 14, 1919.	Pitt D. Van Camp	East Butte Copper Mining Co.—Mining	Caught between skip and beam	\$3,380.00
Jan. 15, 1919.	Florry I early	Anaconda Copper Mining Co.—Mining	Stepped between cars	\$3,380.00
Jan. 20, 1919.	James Fitzgerald	Anaconda Copper Mining Co.—Mining	Fall of rock	No Dep.
Jan. 1, 1919.	Jerry Healy	Anaconda Copper Mining Co.—Mining	Crushed in entry	No Dep.
Jan. 13, 1919.	L. W. Gibson	Cottonwood Coal Co.—Coal Mining	Caught between car and rib	Unsettled
Jan. 22, 1919.	Frank Schmeck	North Butte Mining Co.—Mining	Fell into chute	\$3,380.00
Feb. 2, 1919.	Henry Cassidy	Butte & Superior Mining Co.—Mining	Fell of ground	Unsettled
Feb. 4, 1919.	Wm. E. Knuth	Anaconda Copper Mining Co.—Mining	Fell through levels	\$3,380.00
Feb. 7, 1919.	Mike Beck	Poleys Lumber Co.—Sawmill	Struck by runaway team	Unsettled
Feb. 8, 1919.	John Savola	Anaconda Copper Mining Co.—Mining	Fall of ground	\$1,690.00
Feb. 25, 1919.	Andy Mausset	Anaconda Copper Mining Co.—Logging	Hit by log from chute	No Dep.
Feb. 26, 1919.	Ralph Atkinson	Republic Coal Co.—Coal Mining	Fall of rock	\$3,380.00
Feb. 27, 1919.	Joe Otosovich	Anaconda Copper Mining Co.—Mining	Caught by cars	No Dep.
Mar. 1, 1919.	Robert J. Roskilly	Colusa Parrot Mng. & Smit. Co.—Smelting	Head caught in crane	\$3,380.00
Mar. 11, 1919.	Fred Beaulieu	The Polleys Lumber Co.—Logging	Struck on head by tree	No Dep.
Mar. 1, 1919.	John H. Harrington	J. Nells Lumber Co.—Logging	Struck by logs from chute	No Dep.
Mar. 15, 1919.	Dominick Ainaudi	Anaconda Copper Mining Co.—Mining	Fall of ground	No Dep.
Apr. 5, 1919.	Chas. H. Adams	Anaconda Copper Mining Co.—Mining	Gassed	\$4,225.00
Apr. 17, 1919.	Frank Peterlin	Anaconda Copper Mining Co.—Mining	Fall of ground	No Dep.
Mar. 17, 1919.	James McManney	Anaconda Copper Mining Co.—Mining	Caught between two cars	No Dep.
April 25, 1919.	Hiske Katuri	Cottonwood Coal Co.—Coal Mining	Fall of sand rock	Unsettled

DETAIL OF FATAL ACCIDENTS.

From June 30, 1918, to June 30, 1919.

PLAN NO. 1.

Date of Accident	Name of Deceased	Employer and Industry	Cause of Death	Award
April 26, 1919.	John P. Morrison	Anaconda Copper Mining Co.—Smelting	Fire, burned to death	Unsettled
April 26, 1919.	Joe Kaln	Anaconda Copper Mining Co.—Smelting	Fire, burned to death	Unsettled
May 2, 1919.	Louis Demars	Anaconda Copper Mining Co.—Mining	Thrown from cage	\$4,225.00
May 2, 1919.	Frank Boksich	Anaconda Copper Mining Co.—Mining	Thrown from cage	\$4,225.00
May 2, 1919.	Fred Kiefert	Anaconda Copper Mining Co.—Mining	Thrown from cage	\$4,225.00
May 12, 1919.	John B. Randonia	Anaconda Copper Mining Co.—Mining	Thrown from cage	\$4,225.00
May 12, 1919.	Robert N. Ogden	Butte Miner Co.—Printing	Fell through floor over chute	\$4,225.00
April 18, 1919.	Marvin Lucetke	Eureka Lumber Co.—Logging	Cut by paper knife	Unsettled
May 1, 1919.	Bernhardt Zawadke	J. Neils Lumber Co.—Sawmill	Drowned	Unsettled
June 2, 1919.	R. D. Burnside	Anaconda Copper Mining Co.—Smelting	Pinned down by arms of lbr. lifter	Unsettled
June 13, 1919.	Thomas Lavelle	Anaconda Copper Mining Co.—Mining	Fell between cars	\$4,225.00
June 13, 1919.	William Henry Thomas, Jr.	Anaconda Copper Mining Co.—Mining	Fall of ground	Unsettled
June 20, 1919.	Peter Brozovich	Anaconda Copper Mining Co.—Mining	Electrocuted	\$4,225.00
June 23, 1919.		Anaconda Copper Mining Co.—Mining	Blasting	Unsettled

DETAIL OF FATAL ACCIDENTS.

From June 30, 1918, to June 30, 1919.

PLAN NO. 2.

Date of Accident	Name of Deceased	Employer and Industry	Cause of Death	Award
July 8, 1918.	Wallace Douglas	Gt. Falls Brick & Tile Co.—Brick Mfg.	Caught in shafting	No Dep.
Sept. 12, 1918.	Joseph Kalkberger	Helena Dairy Products Co.—Creamery	Hand cut—infected	Monthly
Nov. 14, 1918.	John H. Winters	Great Western Sugar Co.—Sugar Mfg.	Fell from stack	Monthly
Dec. 4, 1918.	Mike Schoner	Gates & Castellini—Coaling Stations	Head caught bt. shaft bar and car	No Dep.
Dec. 28, 1918.	Jacob A. Sibert	Gt. Falls Meat Co.—Meat Packing	Killed by automobile	\$3,414.00
Mar. 2, 1919.	Charles H. Gale	Stevens & Huffer—Garage	Skidded off bridge	Monthly
May 6, 1919.	Walter Sample	Barnes-King Development Co.—Mining	Fall of rock	No Dep.
July 10, 1917.	John McQuillan	Tarbox Mining Co.—Mining	Cage fell on him	Unsettled

DETAIL OF FATAL ACCIDENTS.

From June 30, 1918, to June 30, 1919.

PLAN NO 3

Date of Accident	Name of Deceased	Employer and Industry	Cause of Death	Award
June 22, 1918.	David Jones	Flathead County—Road Work	Tree fell on him	Monthly
Aug. 9, 1919.	Henry A. Paulsen	Mann Lumber Co.—Logging	Caught in train wreck	Monthly
July 26, 1918.	Nelson Ebert	Park County—Bridge Building	Drowned	Monthly
July 27, 1918.	Al Bauer	Beaver Creek Mining Co.—Mining	Thrown by runaway team	Monthly
July 29, 1918.	John Sillanpaa	Carbon Coal & Coke Co.—Coal Mining	Fall of coal	Monthly
Aug. 17, 1918.	Jesse B. Meckel	Bridger Coal Mining Co.—Coal Mining	Electrocuted	Monthly
Aug. 24, 1918.	Victor Schiavon	Rajotte, Robert & Winters—Road Contrs.	Blasted	\$2,028.00
Aug. 24, 1918.	Luigi Cendron	Rajotte, Robert & Winters—Road Contrs.	Blasted	No Dep.
Sept. 18, 1918.	John Micych	Amalgamated Silver Mines Co.—Mining	Caught between cage and wall	No Dep.
Dec. 4, 1918.	Pete Rivett	Davis Daly Copper Co.—Mining	Fell down shaft	Unsettled
Dec. 27, 1918.	Enoch Karl	Carbon Coal & Coke Co.—Mining	Fall of coal	Monthly
Dec. 20, 1918.	John R. Harbaugh	Carbon Coal & Coke Co.—Mining	Fall of rock	Monthly
Jan. 13, 1919.	John M. Robinson	Crystal Copper Co.—Mining	Slab fell on him	No Dep.
Jan. 19, 1919.	Harry Cook	Thomas McMahon—Timber Contractor	Fall of ground	Unsettled
Nov. 10, 1918.	Nick Jokela	Montana State Hospital—Municipal	Tree fell on him	No Dep.
Jan. 21, 1918.	John L. Sullivan	Smokeless & Sootless Coal Co.—Coal Mining	Bank fell on chest	\$3,392.00
Feb. 16, 1918.	Tom Robatto	Three Forks Portland Cement Co.—C. Mfg.	Caught between cars	No Dep.
April 19, 1919.	Joseph Y. Ussin	Independent Mining Co.—Mining	Leg struck by rock from blast	No Dep.
May 16, 1918.	Knute Mooren	Montana Logging Co.—Lumber	Fall of rock	Monthly
May 13, 1918.	Evander C. Doyle	Henry Good—Logging	Struck by broken beam	No Dep.
May 13, 1918.	Walter Doyle	Henry Good—Logging	Drowned	Monthly

DETAIL OF PERMANENT PARTIAL DISABILITIES.

From June 30, 1918, to June 30, 1919.

PLAN NO. 1.

Date of Accident	Name of Injured	Employer and Industry	Nature of Injury	Cause of Injury	Award
Jan. 26, 1917.	Paul Sigurnik	N. W. Improve. Co.—Coal Mng.	Loss of sight of right eye.	Coal flew in eye.	Monthly
Feb. 16, 1918.	John A. Johnson	A. C. M. Co.—Smelting	Loss of sight of left eye.	Delayed blast.	Monthly
May 6, 1918.	John Lobb	A. C. M. Co.—Mining	Amp. proximal joint of index fin. of right hand.	Caught in cage.	Monthly
June 15, 1918.	C. W. Kelch	Elm. Ordu Mining Co.—Mining	Loss of right eye.	Spoke flew in eye.	\$1,134.00
June 20, 1918.	Robert H. Toole	A. C. M. Co.—Mining	Amp. entire ring finger left hand.	Winning engine	Monthly
June 20, 1918.	Sam Miller	Butte Elec. Ry.	Amp. entire forefinger right hand.	Blood poisoning	300.00
July 16, 1918.	Otto Forsell	North Butte Min. Co.—Mining	Amp. distal joint of index finger of right hand.	Caught bet. rock & lbr.	100.00
Mar. 13, 1918.	Harry Jennison	A. C. M. Co.—Smelting	Amp. 3rd and 4th fingers of right hand; 4th finger left hand; loss use thumb, 1st and 2nd fingers right hand	Converter blew out	1,000.00
July 12, 1918.	Nels Hegg	Somers Lumber Co.—Logging	Amp. 2d jt. 4th finger left hand	Caught on doubletree	80.00
July 24, 1918.	W. T. Jones	A. C. M. Co.—Smelting	Amp. 1st jt. index fin. right hand	Caught on ear couplets	100.00
July 25, 1918.	Ralph Bush	Western Iron Works—Foundry	Amp. entire index fin. right hand	Caught in planer	60.00
July 25, 1918.	Alfred Fox	A. C. M. Co.—Smelting	Amp. 1st jt. 2d finger left hand	Caught in billets	45.00
Aug. 5, 1918.	Henry P. Ruhfus	A. C. M. Co.—Mining	Amp. 2d jt. little fin. right hand	Caught on truck	60.00
Aug. 13, 1918.	Fred Nicholson	Roundup Coal Min. Co.—Coal Mng.	Amp. 1st jt. mid. fin. right hand	Caught on sprag	50.00
July 2, 1918.	Dave Bills	A. C. M. Co.—Mining	Loss of left eye.	Piece of steel in eye	1,134.00
July 14, 1918.	Anton Rovelli	N. W. Improve. Co.—Coal Mng.	Amp. 2d, 3d, 4th fingers left hand	Caught wh. of M'Girty	Monthly
Aug. 20, 1918.	Teddie Bosnick	Libby Lumber Co.—Lbr. Mfg.	Amp. 1st jt. thumb left hand	C'ght thumb car stake	200.00
Aug. 20, 1918.	J. J. Haggerty	A. C. M. Co.—Mining	Amp. end ring finger left hand	Truck caught finger	No award
Aug. 5, 1918.	Robert C. Toy	A. C. M. Co.—Mining	Amp. head index, ½ middle, ½ ring, all little finger.	Caught in machine	1,366.00
July 13, 1918.	Andrew Knudson	A. C. M. Co.—Mining	Amp. index fin. rt. hand 1st jt.	Pick struck finger	No award
Aug. 10, 1918.	John Ruyter	N. W. Imp. Co.—Coal Mining	Amp. ½ distal jt. middle finger left hand	Saved finger off	No award
Aug. 5, 1918.	Fred Frans	A. C. M. Co.—Mining	Amp. great toe at 2nd joint.	Car fell on him	100.00
June 15, 1918.	John Britt	Polleys Lumber Co.—Lumber	Amp. 2d finger left hand to 1st jt.	Caught glove in gear	75.00
Jan. 11, 1918.	Chas. D. Wood	Montana Power Co.—Power	Loss of use of leg	Fell down steep bank	1,180.00
Aug. 24, 1918.	Jas. Robinson	A. C. M. Co.—Mining	Amp. toe at metatarsal	Switch ball struck toes	60.00
Aug. 24, 1918.	Chas. Mack	A. C. M. Co.—Mining	Amp. leg at middle thigh.	Post fell on leg	1,366.00
Sept. 2, 1918.	John M. Little	A. C. M. Co.—Mining	Amp. 2d finger at metacarpal bone.	Car struck hand	217.00
Sept. 5, 1918.	Jim Keenan	A. C. M. Co.—Mining	Index fin. amp. through proximal phalanx	Caught finger between cage and wall plate	150.00
Sept. 6, 1918.	C. H. Schooley	State Lumber Co.—Lumber	Amp. little toe.	Cut toe with ax	30.00
Sept. 11, 1918.	Thor. Brynildsen	East Butte Cop. Min. Co.—Mng.	Amp. 1st joint thumb.	Car ran over thumb	200.00
Sept. 13, 1918.	Wm. Palmmounter	Elm Ordu Minin Co.—Mining	Amp. middle finger last joint	Rock hit hand	148.00

DETAIL OF PERMANENT PARTIAL DISABILITIES.

From June 30, 1918, to June 30, 1919.

PLAN NO. 1.

Date of Accident	Name of Injured	Employer and Industry	Nature of Injury	Cause of Injury	Award
Sept. 19, 1918.	G. P. Smith.	A. C. M. Co.—Mining.	Amp. distal ½ right thumb.	Caught between frame and body of car.	No award
Oct. 14, 1918.	Leo Martin	A. C. M. Co.—Mining.	Amp. distal phalanx index finger.	Caught finger on car.	No award
Oct. 9, 1918.	James Ford	Amer. Sm. & Refin. Co.—Smelting.	Amp. thumb left hand.	Thumb caught between door and side of car.	300.00
Feb. 20, 1918.	Peter Khezevich.	A. C. M. Co.—Mining.	Toes amputated	Struck on toes by ore.	169.00
June 20, 1918.	Edw. Shumlin.	A. C. M. Co.—Mining.	Loss of sight of eye.	Struck by chip of steel	844.00
June 27, 1918.	John L. Schmidt.	A. C. M. Co.—Mining.	Loss of sight of eye.	Slag splashed in eye.	722.00
Aug. 2, 1918.	Alfred Rueger.	Butte & Superior Min. Co.—Mng.	Loss of sight of eye.	Pick hit blast, powder	733.00
Sept. 7, 1918.	John Strvasnik.	Republic Coal Co.—Mining.	Loss first finger right hand	Cght. bet. coal & cars	99.50
Oct. 13, 1918.	Louis Nemes	A. C. M. Co.—Mining.	Loss arm bet. elbow and wrist.	Fall of rock	1,486.00
Nov. 1, 1918.	Wm. Jones	A. C. M. Co.—Mining.	Loss of finger at 2nd joint	Cght. bet. car and br.	60.00
Nov. 4, 1918.	Wm. J. Andrews.	A. C. M. Co.—Mining.	Loss of finger at first joint.	Caught in chain	No award
Nov. 4, 1918.	John Flanick	East Butte Cop. Min. Co.—Mng.	Fingers amputated	Caught between cable and sheave wheel.	90.00
Nov. 6, 1918.	Con O'Neill	A. C. M. Co.—Mining.	Amp. fingers right hand	Caught in joinder	50.00
Nov. 10, 1918.	John Bastian	A. C. M. Co.—Mining.	Amp. ring finger right hand	Rock struck finger.	40.00
Jan. 16, 1918.	Joe LaGue	A. C. M. Co.—Mining.	Chest crushed	Rock struck finger.	2,336.00
Jan. 16, 1918.	Jas. Bogovich	Roundup Coal Min. Co.—Mining.	Loss right leg bet. knee and hip.	Cght. bet. rib & car.	Monthly
April 1, 1918.	Thos. Morrissey	A. C. M. Co.—Mining.	Loss great toe at 2d joint	Train struck him.	1,117.00
Oct. 7, 1918.	O. F. Wallen	A. C. M. Co.—Mining.	Loss of finger at first joint	Train ran over toe.	100.00
Nov. 23, 1918.	Sam Olson	A. C. M. Co.—Lumbering.	Loss of finger at first joint	Hand drawn in between cable and block.	46.67
Nov. 22, 1918.	Peter Schubert	A. C. M. Co.—Smelting.	Hand amputated at wrist	Caught hand in knives	1,400.00
Nov. 23, 1918.	Geo. W. Jarvis	A. C. M. Co.—Mining.	Amp. distal and middle phalanges right finger	Cght. finger drill press	80.00
Nov. 26, 1918.	Sam Polan	A. C. M. Co.—Smelting.	Loss of thumb at distal joint and thumb at 2nd joint	Cght. bt. roller & skid	220.00
Dec. 11, 1918.	R. S. McLachlan.	A. C. M. Co.—Smelting.	Right thumb amputated	Thumb in cut-off saw.	200.00
Nov. 17, 1918.	John Hmena	Republic Coal Co.—Mining.	Finger amputated 2nd joint	Cght. bet. car & coal	200.00
Nov. 30, 1918.	Wm. H. Stearns.	A. C. M. Co.—Mining.	Thumb amputated 1st joint	Thumb in cut-off saw.	No award
Dec. 12, 1918.	Martin Tschida	A. C. M. Co.—Mining.	Thumb amputated 1st joint	Caught bet. spanner and adjust. rod.	70.00
Dec. 16, 1918.	Pete Lowney	A. C. M. Co.—Mining.	Left leg amputated above knee	Ran against bumper.	1,400.00
Dec. 18, 1918.	Sam Shubb	A. C. M. Co.—Mining.	Loss 4th finger at 2nd joint.	Fall of ground.	60.00
Dec. 21, 1918.	Ray Morgan	North Butte Min. Co.—Mining.	Amp. distal ft. right mid. finger.	Struck buzzy valve.	50.00
Dec. 21, 1918.	Eli Drazich	A. C. M. Co.—Mining.	Finger ampd., distal phalanx	Cght. fin. in machine.	40.00
Dec. 27, 1918.	James Hisecox	Libby Lumber Co.—Lumbering.	Leg. ampd., bet. knee and ankle.	Cght. bt. stump & log	1,286.00
Jan. 2, 1919.	Thomas Curnow	A. C. M. Co.—Mining.	Left leg amp. 4 in. above ankle.	Rock fell on him.	1,241.00
Jan. 4, 1919.	Lewis J. Sullivan.	A. C. M. Co.—Mining.	Amp. rt. index fin., distal jt.	Cght. bt. post & rock.	No award
Jan. 12, 1919.	Thos. A. Ralph.	A. C. M. Co.—Mining.	Amp. lth and 5th fin., 1st ind. fin.	Caught hold of wire.	Monthly

DETAIL OF PERMANENT PARTIAL DISABILITIES.

From June 30, 1918, to June 30, 1919.

PLAN NO. 1.

Date of Accident	Name of Injured	Employer and Industry	Nature of Injury	Cause of Injury	Award
Oct. 1, 1918.	John J. Rose	E. I. DuPont de N. Co.—Exp.	Loss use 3d and 4th fin. rt. hand.	Struck by cutting knife	100.00
Oct. 3, 1918.	Bert Davis	N. W. Imp. Co.—Mining	Amp. left foot below ankle.	Struck by car	Monthly
Oct. 6, 1919.	Nick Lazaroff	A. C. M. Co.—Mining	Amp. 3rd finger prox. phalanx.	Fall of ground	120.00
Jan. 6, 1919.	Michael Dudley	A. C. M. Co.—Mining	Loss 4th finger at 2nd joint.	Caught finger in car.	60.00
Jan. 14, 1919.	Jno. Nussbaumer	North Butte Mining Co.—Mining	Loss thumb at distal joint.	Hand caught in buzzy.	200.00
Jan. 23, 1919.	James J. Plant	A. C. M. Co.—Mining	Loss 1st finger distal joint.	Caught in chute.	100.00
Feb. 3, 1919.	Oskar Jarvey	North Butte Mining Co.—Mining	Loss thumb distal joint.	Jan'd bt. buz. & steel	200.00
Feb. 23, 1919.	Clarence Shrimmin	A. C. M. Co.—Mining	Amp. 2d and 3d fin. dist. phalan.	Cght. in blade of joiner	65.00
Jan. 23, 1919.	O. A. McClellan	A. C. M. Co.—Mining	Amp. 1st finger proximal joint.	Fall of rock	119.00
Feb. 3, 1919.	Peter Jolovic	A. C. M. Co.—Mining	Amp. index finger right hand.	Cght. bt. ore & crush.	No award
Feb. 19, 1919.	Paul Miholovich	Republic Coal Co.—Mining	Right leg amptd. below knee.	Foot cght. in wheel.	1,313.00
Sept. 18, 1918.	Victor Day	Roundup Coal Mining Co.—Mng.	Loss sight of right eye.	Thrown under wheels of motor	1,000.00
Feb. 22, 1919.	John Swanson	A. C. M. Co.—Mining	Loss 3d toe at proximal joint.	Ingots fell on toe.	111.65
Mar. 3, 1919.	Nels Swanson	A. C. M. Co.—Mining	Amp. 1st ft. index fin. left hand.	Hit by drill spindle	20.00
Mar. 9, 1919.	Levis Hunter	A. C. M. Co.—Smelting	Leg amptd. above knee.	Car passed over leg.	1,751.00
Mar. 20, 1919.	John Eastman	A. C. M. Co.—Smelting	Thumb amptd. 1st joint.	Caught in rollers	No award
Mar. 28, 1919.	John Kogar	A. C. M. Co.—Mining	Left index fin. amptd. distal end.	Caught between cars.	75.00
April 5, 1919.	Alph. J. Moran	A. C. M. Co.—Mining	Loss 4th finger second joint.	Fall of rock	125.00
April 10, 1919.	M. Millsarhech	A. C. M. Co.—Mining	Amp. 3d finger left hand.	Anode fell on hand.	160.00
April 14, 1919.	Joseph L. Allen	A. C. M. Co.—Mining	Amp. distal phalanx right finger.	Cght. edge car & rock	50.00
Dec. 20, 1919.	Owen Whirly	A. C. M. Co.—Mining	Loss of sight of left eye.	Explosion	1,000.00
Jan. 21, 1919.	Mike Haggerty	A. C. M. Co.—Mining	Loss 1st finger distal joint.	Car fell on finger.	100.00
Mar. 5, 1919.	Willie McGettigan	Butte & Superior Min. Co.—Mng.	Finger amptd. proximal joint.	Rock struck hand.	221.71
Mar. 29, 1919.	J. F. Jones	Cottonwood Coal Co.—Mining	Loss end of 2nd finger.	Contact with rope.	Unsettled
April 3, 1918.	W. F. Mace	Western Lumber Co.—Lumber	Loss right arm at elbow.	Caught in saw.	1,800.00
Aug. 2, 1918.	Ernest Lehlman	Butte & Superior Min. Co.—Mng.	Loss of sight of left eye.	Blasting between cars.	100.00
April 6, 1919.	Pete Tshoff	Republic Coal Co.—Coal Mining	Loss 3rd finger at 2nd joint.	Caught between cars.	Unsettled
May 14, 1919.	Tom Medin	A. C. M. Co.—Mining	Amp. 3d and 4th toes right foot.	Fall of rock	Unsettled
May 21, 1919.	Chas. Bentley	J. Neils Lumber Co.—Lumber	Amp. right foot through instep.	Struck by car.	Unsettled
May 24, 1919.	Teddy Doman	N. W. Imp. Co.—Mining	Thumb and finger amptd.	Cght. in car wheel.	Unsettled
May 28, 1919.	Bert Wilson	A. C. M. Co.—Mining	Right hand amptd. above wrist.	Hand caught between cable and drum	Unsettled
May 28, 1919.	Dave Jones	A. C. M. Co.—Mining	Loss little finger distal phalanx.	Fall of rock.	Unsettled
June 22, 1919.	Pat W. Walsh	Butte & Superior Min. Co.—Mng.	Loss little fin. rt. hand dist. jt.	Lagging slipped	Unsettled

DETAIL OF PERMANENT PARTIAL DISABILITIES.

From June 30, 1918, to June 30, 1919.

PLAN NO. 2.

Date of Accident	Name of Injured	Employer and Industry	Nature of Injury	Cause of Injury	Award
Mar. 30, 1918.	Frank Thomas	Missoula Amuse. Co.—Pictures	Amp. right leg at knee.	Fell on tile flooring.	No award
July 17, 1918.	Clyde Brent	Sunset Garage—Garage	Amp. 1st jt. index fin. rt. hand	Put hand in engine.	No award
July 13, 1918.	Edw. S. McLean	W. A. Sullivan—Contractor	Amp. 1st jt. 2d & 3d fin. left hd.	Fell on planer blades.	90.00
Sept. 8, 1918.	M. H. Millous	Gt. Falls Dairy Products	Amp. left leg 6 in. below knee	Collision	1,313.00
Sept. 7, 1918.	Jas. Creighton	Northern Fibre Flax Co.	Amp. little finger right hand	Cgt. flax brake rollers	70.00
July 15, 1918.	Fred W. Corby	W. E. Dowlin Brick Co.—Bricks	Thumb amptd.	Cgt. flax brake rollers	300.00
Oct. 1, 1918.	Warren Haghe	Gates & Castellini	Amp. mid. finger. 2d joint	Glove cgt. on cable.	100.00
Sept. 12, 1918.	Henry E. Hereth	Schumacher Meat Co.—Butchers	Amp. mid. finger. 1st joint	Coal bucket cgt. hand	300.00
Oct. 16, 1918.	Thos. Murphy	Miller & Collianni—Contractors	Last phal. mid. & ring fin. cut off.	Making sausage	50.00
Oct. 16, 1918.	H. C. Jorgenson	Montana Flour Mills Co.—Milling	Amp. forefinger 2nd joint	Tangled with cable	140.00
Nov. 2, 1917.	Martin O'Neill	Leighland & Kleppe—Contrs	Loss of sight of right eye	Cgt. gear agitator.	150.00
Nov. 18, 1918.	Clas. G. Schafer	W. R. Gray—Coal Dealer	Loss of use of index finger	Gravel in eye	982.00
Nov. 11, 1918.	C. H. Sannan	Jennison Mills Co.—Flour Mill	Part of second finger amptd.	Cut by ax.	200.00
Nov. 22, 1918.	Mike De Frank	Gt. West. Sugar Co.—Sugar Mfg.	Small finger left hand cut off.	Exam. spouts & con	40.00
Jan. 9, 1919.	Walter M. Hay	E. S. Newton—Carpenter Shop	First and second fingers amptd.	Press frame dropped	90.00
Mar. 6, 1919.	Julius Pernet	Wood & Safford—Machine Shop	Index fin. rt. hand amp. dist. jt.	Cgt. roller machine	200.00
Feb. 1919.	Henry Richards	Barnes-King Dev. Co.—Mining	Loss of sight of right eye	Cgt. belt boring mach.	125.00
April 9, 1919.	Andrew J. Brown	Auto-Inn Garage Co.—Garage	Loss index finger 2nd joint	Rock struck eye	1,000.00
May 17, 1919.	Jas. I. Bell	Gallatin Val. Milling Co.—Milling	1st, 2d, 3d fin. left hand amptd.	Cgt. between gears	1,186.00
				Caught in rolls	Unsettled

DETAIL OF PERMANENT PARTIAL DISABILITIES.

From June 30, 1918, to June 30, 1919.

PLAN NO. 3.

Date of Accident	Name of Injured	Employer and Industry	Nature of Injury	Cause of Injury	Award
May 11, 1918.	John Zintek	Davis-Daly Copper Co.—Mining	Amp. dist. jt. lft. fin. rt. hand	Fall of rock	30.00
June 30, 1918.	Erick Lindstrom	Davids Bakery—Steam Bakery	Amp. dist. jt. index fin. left hand	Cght. dough mangle	100.00
July 11, 1918.	John Ryan	General Const. Co.—R. Contr.	Amp. dist. jt. ring fin. rt. hand	Rail dropped on hand	40.00
July 18, 1918.	C. N. Harris	Willis L. Adams—R. Contr.	Leg amptd. above knee, right	Fall of rock	1,399.00
Aug. 14, 1918.	Louis Coby	Lewis and Clark Co.—Road Wk.	Amp 1st jt. thumb rt. hand	Trip hammer fell	198.00
July 13, 1918.	Grace Hunter	Thomas Donlan—Logging	Loss eye by enucleation	Piece of tree hit eye	1,140.00
Aug. 3, 1918.	Gus Zimmerman	Mann Lumber Co.—Lumber	Amp. index finger	Scratched on can	200.00
Sept. 3, 1918.	Nich. Predvornik	Butte Ramsell Corp.—Mining Co.	Amputation of toe	Rock fell on foot	22.85
Aug. 29, 1918.	Walter A. Smith	Two Miracle Con. Corp.—Contr.	Amp. index finger	Struck by cog wheel	100.00
Sept. 19, 1918.	Elmer Mosgaard	Grant Smith & Co.—Gen. Const.	Amp. leg below knee, left	Struck by engine	No award
Oct. 17, 1918.	Fred Var. Helt	Gallatin County—Road Work	Loss of sight of eye	Part of bucket in eye	964.00
Oct. 22, 1918.	Dr. C. P. Easton	City of Butte—Health Office	Fracture of neck of femur	Assaulted by San. in	900.00
April 15, 1917.	Wm. Engelsatter	City of Billings—Municipal Wk.	Loss of use of arm at shoulder	Blood poisoning	1,274.00
Dec. 16, 1918.	Frank Bussett	Jardine Gold Min. & Mill Co.	Left thumb amptd. at 1st joint	Splitting wood	Monthly
Dec. 20, 1918.	Edw. C. Norris	Farmers Co.—Op. Assn.—Winifred	Amputation left hand	Caught testing rolls	1,413.00
Dec. 3, 1918.	Edw. Christ	Snow Storm Mines, Cons. Min.	Loss of sight of right eye	Piece of steel in eye	Monthly
Dec. 28, 1918.	Nick Travers	Davis-Daly Cop. Co.—Mining	Loss of left eye by enucleation	Piece of rock in eye	1,134.00
Jan. 14, 1919.	Geo. McDonald	Butte & Plutus Min. Co.—Mining	Loss of 3d finger proximal joint	Scotched, infected	120.00
Feb. 23, 1919.	Jos. D. Mcagher	Butte & Plutus Min. Co.—Mining	Finger amptd. proximal joint	Coal fell on hand	100.00
Feb. 16, 1918.	Jas. H. Cullihan	Nillard Coal Co.—Mining	Loss 2nd finger at 2nd joint	Punched in board	100.00
Feb. 15, 1919.	Harry Ellis	Nelson Coal Co.—Mining	Loss of sight of eye	Steel flew in eye	1,000.00
Mar. 7, 1919.	Lester Stinger	Nauquard Bros.—Saw Mill	Thumb amptd., left hand	Hand in saw	No award
Mar. 26, 1919.	Jno. Edw. Alm	John Chalfee—Contractor	Loss index finger 2nd joint	Caught in planer	187.50
Mar. 8, 1919.	Atiel Lahtinen	H. M. Stevenson—Ry. Ties	3d finger left hand amptd. 1st jt.	Cght. det. two ties	50.00
April 8, 1919.	Andrew E. Bark	O'Neil Lumber Co.—Lumber	Loss of left thumb, stumps fingers	Hit in eye by wood	Monthly
Dec. 23, 1919.	James Rogers	Mineral County—Janitor	Loss of eye by enucleation	Eye injured by coal	1,000.00
Jan. 26, 1919.	Nick Park	Cascade Shl. Mines & Mills—Mng.	Loss of 3d finger at 2d joint	Caught under timber	100.00
Mar. 23, 1919.	Herman Donner	Pearce Coal Co.—Mining	Loss of index finger at dist. jt.	Caught in chain	125.00
April 5, 1919.	John Pearce, Jr.	George B. Olsen—Saw Mill	Amputation of hand at wrist	Attention detracted	Monthly
May 1, 1919.	Albert E. Olsen	George B. Olsen—Saw Mill	Amputation of hand at wrist	Caught between links	112.00
May 10, 1919.	Jas. M. McBride	Norwegian Am. Oil Co.—Oil Well	Loss distal joint 2d and 3d fingers	of elev. and hook	Monthly
Mar. 11, 1919.	Ralph Swain	Froid Auto & Oil Co.—Garage	Loss distal joint of 1st, 2d, 3d fin.	Glove caught between rolls feed grinder	Monthly
April 12, 1919.	Ed Peterson	W. B. Russell—Saw Mill	Right hand amptd. with exception of thumb and 1/2 1st finger	Hand in edger saw	Monthly
May 31, 1919.	E. F. Smith	Turner Lumber Co.—Lumber	Loss distal phalanx 4th fin. rt. hd.	Caught in planer	37.50

INJURIES CLASSIFIED AS TO PART OF BODY AFFECTED.

July 1, 1915, to June 30, 1919.

PLAN NO. 1.

Part of Body Affected.	NATURE OF INJURY												Total
	Bruises	Cuts	Punctures	Sprains	Fractures	Dislocations	Amputations	Scalds	Burns	Operations	Infections	Unclassified	
Foot	1,035	209	248	78	128	5	7	6	48	.....	19	5	1,788
Leg	744	277	94	28	317	2	7	4	30	.....	29	10	1,482
Thigh	153	34	11	6	12	.....	.....	1	11	.....	1	1	230
Ankle	232	30	30	381	83	9	.....	.....	11	.....	15	.....	755
Knee	301	74	18	129	10	16	.....	.....	2	.....	.....	.....	567
Hip	189	16	1	20	8	14	.....	.....	2	.....	.....	.....	251
Hand	432	717	113	1	38	2	9	1	102	.....	95	3	1,531
Thumb	207	283	11	13	46	6	27	.....	2	.....	25	2	622
Wrist	67	133	13	102	46	5	.....	1	15	.....	8	4	392
Forearm	51	69	5	7	15	.....	.....	1	12	.....	3	.....	163
Elbow	267	206	23	28	134	1	7	4	43	.....	10	2	727
Arm	78	35	2	9	7	9	.....	.....	.....	.....	6	1	147
Shoulder	386	82	2	51	55	.....	.....	1	12	.....	4	1	614
Finger	935	1,530	33	3	213	13	182	1	16	.....	84	18	3,029
Toes	636	249	9	5	179	3	19	.....	3	.....	10	6	1,119
Clavicle	2	.....	.....	.....	57	2	.....	.....	.....	.....	.....	.....	61
Neck	36	26	1	11	.....	.....	.....	2	48	.....	.....	.....	125
Chest	164	19	2	7	.....	.....	.....	1	5	.....	.....	1	199
Side	279	13	4	27	.....	.....	.....	.....	.....	.....	1	.....	326
Back	722	75	3	409	10	.....	.....	16	2	.....	.....	6	1,242
Face	302	302	.....	.....	3	1	.....	3	110	.....	3	2	1,542
Head	107	512	12	.....	1	.....	.....	1	12	.....	3	2	686
Nose	20	52	.....	.....	24	1	.....	.....	5	.....	3	.....	105
Forehead	34	204	6	.....	1	.....	.....	.....	11	.....	3	.....	259
Scalp	52	1,198	3	.....	.....	.....	.....	.....	3	.....	.....	.....	1,263
Skull	.....	.....	.....	.....	93	.....	.....	.....	1	.....	7	.....	26
Ribs	40	1	.....	6	132	.....	.....	.....	1	.....	.....	1	181
Eye	228	197	21	.....	1	.....	7	4	101	.....	137	166	867
Internal	116	77	9	21	34	.....	3	.....	10	.....	4	99	373
Unclassified	6	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	20	27
Total	7,679	6,620	592	1,360	1,543	144	268	30	634	10	467	412	19,759

Part of Body Affected.

INJURIES CLASSIFIED AS TO PART OF BODY AFFECTED—(Continued).

PLAN NO. 3.

NATURE OF INJURY

July 1, 1915, to June 30, 1919.

Part of Body Affected.

Part of Body Affected.	Bruises	Cuts	Punctures	Sprains	Fractures	Dislocations	Amputations	Scalds	Burns	Operations	Infections	Unclassified	Total
Foot	107	29	56	11	13	1		1	2		4	3	227
Leg	89	32	4	10	72		3	1	4		8	1	224
Thigh	5	1		5	5	2					1	1	19
Ankle	26	6		53	12	1			2		1	1	101
Knee	48	13	4	15	2	5					1	1	89
Hip	37			8	5	3					29	3	54
Hand	49	58	9	4	11		4		24		4		191
Thumb	26	27	2	1	13		9						82
Wrist	4	11		15	10	2			3			1	46
Forearm	1	4	1		6				1				13
Arm	26	14		10	36	1		1	7		3	1	98
Elbow	5	1		1	5	1							14
Shoulder	51	2		15	6	17			1		16	1	93
Finger	98	87	7		18	3	39		4		2	4	273
Toe	44	12	3	1	11		3						80
Clavicle					15								15
Neck	2	3							4			1	10
Chest	16	1										1	18
Side	24	2		4								1	41
Back	65	5		59								3	132
Face	18	30			2				22				72
Head	33	69	1						2		1		101
Nose	1	3			10						1		15
Forehead	3	10							1				14
Scalp		41											41
Skull					6								6
Ribs	3				65							2	70
Eye	24	25	4				2		7		7	17	87
Hernia												19	19
Unclassified	26	10			2				3		1	18	60
Internal	1			1								6	8
Total	842	489	91	213	325	35	60	3	87		80	88	2,313

INJURIES CLASSIFIED AS TO PART OF BODY AFFECTED—(Continued).

ALL PLANS

NATURE OF INJURY

Part of Body Affected.

	Bruises	Cuts	Punctures	Sprains	Fractures	Dislocations	Amputations	Scalds	Burns	Operations	Infections	Unclassified	Total
Foot	1,416	294	444	110	179	6	9	15	68	.....	39	13	2,583
Leg	1,079	398	55	69	467	2	11	10	46	.....	40	14	2,191
Thigh	181	37	11	24	21	.....	.....	3	1	.....	3	1	235
Ankle	319	45	7	584	110	19	.....	1	14	.....	4	1	1,104
Knee	441	119	30	183	16	28	.....	.....	2	1	23	2	1,845
Hip	301	23	1	44	16	29	.....	.....	5	.....	.....	2	421
Hand	664	1,091	166	36	61	3	15	3	201	5	196	9	2,450
Thumb	318	431	22	20	73	9	48	.....	3	.....	36	4	964
Wrist	94	206	16	194	84	10	.....	.....	1	.....	14	6	652
Forearm	62	78	6	9	26	.....	.....	.....	1	.....	4	.....	204
Arm	393	293	30	57	242	3	7	11	86	2	24	.....	1,154
Elbow	103	51	4	12	15	14	.....	.....	2	.....	8	1	210
Shoulder	552	97	2	95	34	96	.....	1	14	.....	4	3	898
Finger	1,464	2,167	68	5	287	24	308	1	53	2	173	34	4,586
Toes	858	296	13	6	214	5	29	1	3	.....	16	14	1,455
Clavicle	2	.....	.....	.....	90	5	.....	.....	.....	.....	.....	.....	97
Neck	55	32	1	13	1	.....	.....	3	59	1	1	1	166
Chest	229	23	3	11	.....	.....	.....	2	8	.....	.....	3	279
Side	432	21	7	72	12	1	.....	.....	4	.....	1	4	542
Back	969	90	4	664	.....	.....	.....	.....	21	.....	.....	10	1,773
Face	164	446	14	.....	9	.....	.....	4	171	1	4	2	1,815
Head	285	954	3	.....	1	.....	.....	2	16	.....	1	4	1,267
Nose	27	81	.....	.....	49	1	.....	.....	6	.....	4	.....	168
Forehead	40	291	6	.....	1	.....	.....	.....	15	.....	3	.....	356
Scalp	53	1,336	4	.....	.....	.....	.....	.....	3	.....	7	.....	1,403
Skull	2	.....	.....	.....	38	.....	.....	.....	1	.....	.....	.....	41
Ribs	59	1	.....	.....	.....	.....	.....	.....	1	.....	.....	5	386
Eye	367	315	29	11	307	2	10	4	148	8	235	240	1,357
Hernia	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	124	1,124
Unclassified	200	106	12	39	46	2	5	2	18	1	8	153	592
Internal	8	.....	.....	3	.....	.....	.....	.....	1	.....	1	46	59
Total	11,137	9,322	958	2,261	2,400	264	442	67	1,024	21	849	702	29,447

Rules of Procedure

OFFICE AND OFFICE HOURS.

1. The office of the Industrial Accident Board is on the first floor of the State Capitol Building, City of Helena. The office is open continuously from 9 a. m. until 5 p. m., each day except Sundays and legal holidays and is in charge of the Secretary as the executive representative of the Board, subject to its orders and instructions.

The Board fully realizes that its members are public servants and that it is charged with the administration of an important department of the state government, which to be successful must have the support and co-operation of the people of the State, which the Board earnestly requests.

The members realize that the work entrusted to them calls for a high conception of its importance and requires the same judicial impartiality as is expected of any tribunal administering justice and it is with that understanding that they have devoted their efforts to the duties before them.

The Board anxiously desires the public to realize that its office is in every sense a public place, to which citizens of the state are welcome at all times, without the formality of an invitation of any kind. The Board was created to serve the people of Montana and it is anxious to do its full duty.

In the work of administering the law the Board has endeavored to pursue a policy, adapted to make effective the spirit and principle of the Compensation Act, and to that end, adopted a set of rules to govern its procedure that have stood the test of four years' experience very satisfactorily and, with but slight changes, they have been continued in force or readopted for the ensuing year as follows:

SESSIONS OF THE BOARD.

2. The Board will be in continuous session and open for the transaction of business during all the business hours of each day except Sundays and legal holidays. All sessions will be open to the public and will stand and be adjourned without further notice thereof on its records.

In addition to the continuous session, the Board will convene in regular session, as a body, each Monday at 10 o'clock, a. m., for consultation and for the disposition of important or special matters, including all financial questions that should come before the Board as a whole.

DUTIES OF THE SECRETARY OF THE BOARD.

3. The Secretary shall keep a record of all meetings of the Board; shall attend to all correspondence of the Board; shall issue all notices of hearings before the Board, or before any member thereof; shall issue, or cause to be issued, all subpoenas and processes emanating

from the Board; shall arrange the indexing, numbering and preserving of all pleadings, reports and papers of all kinds filed with the Board and shall perform such other duties as the law directs or as the Board may assign to him.

RECORDS OF PROCEEDINGS.

4. All proceedings of the Board shall be recorded in the records of proceedings, provided for by the Secretary, which shall be a public record and shall show all of the acts, determinations and decisions of the Board sitting in public session. In connection with the record of proceedings shall be kept an entry docket in which all cases coming up for hearing shall be entered at the time and in the order in which they are filed. Each case shall be numbered in the order in which it is filed. The entry docket shall show the title of the case, the date of filing, the date, hour and place of hearing, the date of issuing notice, the date of the receipt of the acknowledgement of the service of notice, and, in abbreviated and condensed form, the order or award.

FORMS PRESCRIBED.

5. Printed forms of notices, application blanks, proof and all proper forms required by the provisions of the Act will be furnished on request to the Board. Such forms must be used in all cases where they are prescribed.

REQUIREMENTS OF EMPLOYERS.

6. Every employer filing his election to become subject to Compensation Plan Number One, shall within a reasonable time thereafter furnish the Board with satisfactory proof of his ability to meet all obligations imposed on him by the provisions of the Act.

Every employer filing his election to become subject to Compensation Plan Number Two, shall within a reasonable time thereafter file with the Board whatever insurance policies he has taken out and also shall furnish any information required by the Board concerning his operations.

Every employer who either elects or is subject by operation of Law, to come under Compensation Plan Number Three shall promptly pay the amount of his assessment to the Treasurer of the Industrial Accident Board and shall also furnish copies of his monthly pay-roll covering each month's operation promptly to the Board on the first of each month for the proceeding month.

NOTICE OF ACCIDENTS.

7. Every employer of labor and every insurer under the Act shall immediately report to the Board any accident to a workman causing death or a disability continuing for more than one full working day and thereafter shall make such supplementary reports regarding the condition of the injured workman as may be necessary. Such report or reports shall be made in full on forms prescribed by the Board for that purpose.

Physicians in charge of hospitals or otherwise attending injured employees, under the Compensation Act, must fill out reports showing the condition of the injured on blanks provided for that purpose, obtainable from the employer in whose service the accident occurred.

REPORTING OF ACCIDENTS.

8. All employers operating under the Law shall make reports to the Board of all accidents to their employees, when they occur, or if preferred may make weekly reports covering all accidents occurring during the preceding week. Such reports shall be on and in accordance with the requirements of the report blank "Form No. 37" of the Board.

In all cases where the disability resulting to the injured employee continues for more than fourteen days, exclusive of the day of the accident, a further report on and in accordance with the requirements of report blank, "Form No. 43," shall be made to the Board on the 15th day of such disability; provided that in all cases where the accident causes the loss of a member, or death, such report on Form No. 37 shall be made to the Board as soon as possible after the occurrence of such accident and in any event within ten days after such accident or such death, as the case may be.

CASES REQUIRING IMMEDIATE REPORTS.

9. In all cases where a claim for compensation is filed with the Board by an injured employee, if the report required by Rule 8 has not been made and filed by the employer on account of any disagreement which may exist as to the continuance of the disability or for any other reason, then such employee shall forthwith be required to file a report of the accident on and in accordance with the requirements of blank Form No. 36 of the Board.

SUPPLEMENTAL REPORT.

10. In accidents where death occurs a supplemental report must be made out and filed with the Board giving full information to the Board as to the dependents or beneficiaries of the deceased.

In cases of continuing and indeterminate disability, supplemental report form, entitled, "Certificate of Condition," No. 44, will be supplied on which information covering the condition of the injured employee can be reported to the Board.

FINAL REPORT.

11. When the disability of the injured employee terminates, either by his returning to work or by being discharged as recovered by the attending physician, a final report thereof shall be filed with the Board on and in accordance with Form No. 43. When the payment of compensation for the loss of a member or in case of death, has been fully made, the final report thereof shall be filed with the Board, together with settlement receipts on and in accordance with Form No. 63, signed by the employee or his dependents or beneficiaries, as the case be.

COMPENSATION PAYMENTS.

12. When compensation payments are made receipt for the monthly or final payments on, and in accordance with Forms No. 63 and 64 signed by such employee, or his dependents, shall be filed in the office of the Board when received by the employer from the employee, or at the latest on the first of each month for the preceding month.

PERSONAL SIGNATURE NECESSARY.

13. The personal signature of the injured employee, or the dependent, or dependents, or beneficiaries, to whom compensation is to be paid, is required and must always appear on all receipts on account of compensation and settlement receipts of all kinds. Typewritten signatures will not be accepted and where the party in question cannot write, the mark of same, when properly witnessed, will be accepted.

Illegible signatures should be written in duplicate on receipts and agreements to facilitate the work of the filing department of the Board, so that confusion in the indexing of cases and reference thereto may be avoided. This assistance will be as helpful to employers and insurers as to the Board, as it will guarantee such classification and indexing as will result in the furnishing of prompt and full information on any case, at any time.

ADJUSTMENT OF CLAIMS.

14. Claims for compensation filed with the Board shall be considered and adjusted in the order in which they are received. The claims shall be entered in a record book kept for that purpose or in a file properly adapted for the purpose, and shall be numbered in the order received. All papers referring to any case shall bear the number of such cases as on the original file. All claims for compensation account injury, not resulting in death, must be made in writing by the party injured within three months after the injury is received, unless for some unavoidable reason, acceptable to the Board, the filing of claim has been delayed and in any or all cases of personal injury and death, the claims shall be forever barred unless presented in writing within six months of the date of the happening of the accident, unless the party or parties in question are minors or "mental incompetents."

INJURED LEAVING LOCALITY.

15. Injured employees who are receiving compensation or are entitled to same, who desire to leave the locality where they have been employed, shall notify the Board of their intention to leave and shall accompany such notice with a certificate of a physician, satisfactory to the Board, which shall state the exact condition of the injured, with the probable time of the continuance of disability. When the employee in question has changed his residence or locality all payments of compensation due or coming to him shall only be made upon the receipt of a physician's certificate, showing that compensatable disability still exists.

LUMP SUM PAYMENTS.

16. Payments of awards in lump sum will only be permitted when the Board is clearly convinced after investigations made or hearings had, that such a form of settlement will be to the unquestioned and actual advantages of the claimant. The question will only be considered upon the petition of parties affected, which must show the signatures and address of the dependant or beneficiary and the address of the employer. It is manifest that the intention of the Legislature was to provide that compensation should be paid to the persons or families entitled to it in monthly payments, because when so paid it would more effectually meet and relieve the wants of the injured employees, their families and beneficiaries, than if paid in a lump sum. Therefore lump sum payments will be authorized only in cases, where the circumstances clearly prove the wisdom of so doing. The desire of the applicant to go to another state, city or town, or to buy property, or to invest in business, etc., do not in themselves constitute conclusive reasons for lump sum payments. In a general way, the circumstances and conditions that will justify such payments will consist of those existing prior to the accident or created by it, such as mortgage indebtedness on the home of the employee or sickness constituting indefinite disability or necessity of educating children, or some such extraordinary or extraneous condition. In such cases, all such fact and conditions must be set forth in detail in the petition submitted to the Board by the applicant.

COMPROMISES.

17. Claims involving questions relating to the extent of the injury, its effects as to impairment, irregularity in observance of the provisions of the Act or of these rules, or any proceedings or conditions wherein it is difficult to apply the text of the Act without an apparent injustice to the claimant, may be compromised by the Board after investigation and presentation of all the obtainable facts relating thereto. In cases where a compromise agreement has been reached between the employer and the injured employee, the Board will investigate such compromise and if it finds that the agreement conforms to the spirit of the Act and provides substantial justice to the parties concerned, especially to the injured workman, the compromise agreement will be approved. No compromise agreements between the employer and employee are valid without the approval of the Board.

HOW HEARINGS SHALL BE CONDUCTED.

18. The rules of practice governing hearings before the Board shall conform substantially to those obtaining before the courts of the state, yet, as the entire purpose of the Board in holding hearings is to secure the facts in as direct and simple a manner as possible, the procedure will be plain and free from technicalities. The law does not contemplate that the Board shall be bound by the usual common law or statutory rules of evidence, but gives it the latitude of making the inquiry in such manner as is best calculated to ascertain the substan-

tial rights of the parties and to carry out justly the spirit of the law. Therefore there will be no technical rules of practice introduced in connection with the conduct of hearings, but they will be conducted in such a way that every latitude will be given to investigations covering the question at issue, in whatever manner the Board's judgment may determine is best adapted to ascertain and determine expeditiously and accurately the substantial rights of the parties at interest. Issue can be joined by claimant filing complaint with the Board, accompanied by proof of service of copy on defendant, followed by filing of defendant's answer, accompanied by proof of service of copy of answer upon the claimant.

HOW TO MAKE PROOF.

19. Proof of claims can be submitted by affidavit when so desired by claimant and not objected to by Board, although the Board appreciates that proof furnished through the medium of affidavits is not as desirable as oral testimony regularly adduced before the Board sitting for that purpose. The Board will, when it deems necessary, require medical examinations and order the submission of oral testimony by witnesses, whether desired by claimant or not, provided that the claimant shall be notified of the time, place and manner of taking such oral testimony in ample time for him to be present with whatever witnesses he may desire. However, to the end that proceedings may be disposed of expeditiously with the least possible expense to the parties, the Board is willing, wherever and whenever possible, that proofs may be submitted in the form of affidavits, provided that unless otherwise stipulated or ordered by the Board in all disputed, contested or litigated claims, proof shall be submitted as in civil cases in the district courts of this state by oral and written testimony adduced at the hearing and depositions taken in the manner prescribed by the code of civil procedure of the Revised Codes of Montana.

Arguments on hearings before the Board will be permissible only when called for by the Board or any of its members, and then only for such time as the Board in its discretion may allow.

DEPOSITIONS.

20. Depositions may be taken and used upon any hearing, where the conveniences of the witnesses of the parties to the hearing so justify. Parties desiring to take the testimony of witnesses who live beyond the jurisdiction of the State, or who for any lawful reason are unable to attend the hearing, may place in evidence at the hearing depositions that are taken before some person authorized to take depositions; provided, that application is duly made to the Board for permission to take such deposition and upon the issuance by the Board of a commission directed to some competent person to take the testimony of such witness, or witnesses, provided that in all other particulars the applying for such commission shall comply with the terms, provisions and requirements of the Montana statutes governing the taking of depositions. By consent of Board depositions may also be taken by stipulation of the parties.

STIPULATION OF FACTS.

21. The parties to any proceeding or controversy before the Board may stipulate the facts in writing and thereupon the Board may make its order or award, based upon such stipulation.

In view of the fact that proceedings may be disposed of with great expedition and also with slight expense to the parties concerned where the facts covering the controversy are submitted by stipulation, the Board desires to encourage the parties to any proceedings to stipulate the facts wherever it can be reasonably done.

CONTINUANCES.

22. The policy and endeavor of the Board will be to determine all questions brought before it as speedily as possible, but continuances of hearings for good cause, properly shown, may be granted upon the request of either party. The Board will continue hearings on its own motion only when the volume of business is such as to determine it, or when the proof is not satisfactory or is insufficient.

NOTICE OF HEARING.

23. To the end that all proceedings before the Board shall be conducted with the least possible expense and with the greatest practical dispatch, notice of all hearings or proceedings before the Board, unless otherwise directed, shall be given by mail and proof of the mailing of any such notice shall be prima facie proof of the service thereof. Unless otherwise ordered, at least ten days' notice of hearings will be given from the time of mailing the notice.

If on account of congestion of work, or delay in filing proof or from any other cause, the hearing of a particular claim is delayed, or postponed, the time of hearing such claim shall be set by the Board at as early a date as possible and the Secretary shall send notices to all parties concerned, advising them of the date and time set for hearing. In the event that either of the parties to the controversy fail to appear at the time set for such hearing, the case will proceed to the final determination and an award will be made according to the facts adduced; unless either party asking for a continuance or postponement shall show upon affidavit, properly submitted, that his absence is unavoidable and that if the hearing is to proceed without his being present that it will work a material and irreparable injury to him.

DISPUTES.

24. In case of disputes in matters coming under the jurisdiction of the Board, either party to the controversy may appeal to the Board for relief and the Board shall make such order or award as shall be lawful or just in the premises. In all such cases, the party complaining shall file his application with the Board, with proof of service of a copy on the adverse party. Such adverse party shall file his answer thereto with the Board within fifteen days after such service with proof of service of a copy of such answer on the party making the application.

In the event that the papers filed justify the Board, in its judgment, in concluding that the matter at controversy deserves a hearing, it will notify the parties of the time and place decided upon for such hearing, giving the parties in question at least ten days' notice concerning same.

AMENDMENTS.

25. Amendments may be made to any papers or proofs that have been submitted to the Board upon application being made to the Board for such permission and upon good cause shown. The Board may on its own motion modify or change its order, finding or award at any time if it shall discover that any mistakes have been made in connection therewith.

DESIGNATION OF PARTIES TO HEARING.

26. The parties to any original proceeding before the Board shall be designated as the plaintiff and the defendant. The party filing the application, petition or complaint, in such proceeding shall be designated as the plaintiff, and the adverse party as the defendant to the controversy or proceeding whatever it may be.

The applications or petitions for the revision or modification of any award or order of the Board shall be entitled with the parties plaintiff and defendant as in the proceeding in which the award or order was made and shall bear the number of the original proceeding.

FORM OF PAPERS.

27. All petitions, motions, pleadings, complaints, applications, also special answers, must be printed or typewritten in the form prescribed by the Board and must be filed in duplicate, provided that if a greater number of copies is necessary that same shall be supplied by the party presenting the papers to be filed.

PLAINTIFFS AND DEFENDANTS.

28. All persons should be joined as plaintiffs in whom any right to any relief arising out of the transaction, is alleged to exist. In the event that any such persons should refuse to join as a plaintiff they should then be joined as defendants and the facts of the refusal to join as plaintiffs stated in the application, petition or complaint.

All persons should be joined as defendants against whom the right to any relief is alleged to exist, whether jointly, severally or in alternative and the Board at any time, upon a proper showing, or of its own motion, may order that any additional party be joined as defendant when it deems the presence of such party desirable or necessary.

ANSWER—SPECIAL—WHEN TO BE FILED.

29. The defendant may file an answer of denial to the application petition or complaint of the plaintiff at any time, within the time limit specified, but in the event that no such answer is filed the

allegations contained in the application petition or complaint regardless of the absence of denial must be substantiated by proof, unless otherwise ordered by the Board.

If the defendant rely upon any special defense, such as, that the injury or death of the employee was due to the willful misconduct of the employee including intentional, self-inflicted injury, willful failure or refusal to use a safety appliance, willful failure or refusal to perform a duty required by the statute or any other defense of contention and avoidance, such special defense must be set up in an affirmative answer filed at least five days before the date set for the hearing.

RE-HEARINGS.

30. Any party, or parties, aggrieved or dissatisfied with an award, order or decision of the Board, may at any time within twenty days after the service of same apply for a rehearing on the grounds that the Board acted without, or in excess of its power; that the order, decision or award was procured by fraud; that the evidence does not justify the findings; that the applicant has discovered new evidence; that the findings do not support the order, decision or award, or that the order, decision or award is unreasonable. The application for rehearing shall set forth specifically and in full detail the grounds upon which said re-hearing is asked for.

APPEALS.

31. At any time within thirty days after the application for a rehearing has been denied, or if the application is granted, then within thirty days after the rendering of the decision on the rehearing and within twenty days after notice thereof, any party dissatisfied thereby may serve notice on the Board of appealing from the action of the Board, to the District Court in the county where the employer lives or where his principal place of business may be located. The said appeal shall consist of serving a written notice upon any member of the Board or upon the Secretary of the Board by the delivery of a copy of such notice, to such member or Secretary and the filing of the original with the clerk of the court to which said appeal is taken. A copy of such notice must also be served upon the adverse party if there be any.

EXCEPTIONS—APPEARANCES.

32. In all hearings and proceedings before the Board, when requested, an exception will be given and entered of record in favor of the party against whom any ruling is made, unless such party has defaulted.

The parties to any controversy or proceeding before the Board may appear in person in their own behalf or if they desire and so advise the Board, they may be represented by an attorney.

MODIFICATION OF AWARDS.

33. The Board having continuing power and jurisdiction over an award, may make changes or modifications of its formal findings, either upon its own motion or upon the application of the beneficiary or beneficiaries or employer. If the change is determined upon through the Board's own motion then it must first notify the beneficiary or beneficiaries or employer before making the change or modification.

When the application has been made for a modification of an award, it shall be docketed and set for hearing as in the case of original application.

COPY OF RECORDS.

34. Either or any of the parties to any proceedings before the Board, desiring to preserve the record, will be permitted to do so, providing they provide for the expense or cost of stenographer to do same.

ADDRESSING COMMUNICATIONS.

35. Under all circumstances and conditions address all communications, regardless of the subject matter of same, to the Industrial Accident Board, Helena, Montana.

CHANGES IN RULES.

36. Rules of the Board are subject to change, additions and amendments at any time, without notice, and when in the judgment of the Board new conditions arise requiring new methods of procedure.

It must be conceded that no rules can be adopted that will cover all cases that may arise, therefore, each case must depend, to a great extent, upon its own peculiar facts and individual circumstances.

Bureau of Safety Inspection

Industrial Accident Board,
Hon. A. E. Spriggs, Chairman,
Helena, Montana.

Gentlemen:

I herewith hand you statement showing work of the Boiler Inspection Department for the year commencing July 1, 1918, and terminating June 30th, 1919. Also financial statements of the Coal Mine Inspection Department, and Quartz Mine Inspection Department, covering the same period, the three departments comprised in the Bureau of Safety Inspection. This is all arranged in tabular form and sets out clearly the results of the year's work. Detailed reports will be furnished by the Coal Mine Inspector and Quartz Mine Inspector covering their work in those departments.

The work of this Bureau is increasing steadily every year and will soon require an assistant clerk during the busy season of the year. However, I am glad to report that the work and records of the Bureau are up to date at the present time.

I trust the reports as above stated will be found satisfactory.

Very respectfully,

E. B. KENNEDY,
Clerk of Bureau.

Helena, July 1, 1919.

FINANCIAL STATEMENT, BOILER INSPECTION DEPARTMENT, JULY 1ST, 1918, TO JUNE 30TH, 1919.

RECEIPTS.

From Appropriations:		
Unexpended Balance	\$14,847.48	
For Salaries and Expenses.....	17,300.00	\$32,147.48
Office Receipts:		
License Fees	8,796.00	
Boiler Fees	16,965.00	25,761.00
		<u>\$57,908.48</u>

DISBURSEMENTS.

Salaries and Expenses.....	\$18,221.50	
Balance Appn. turned back into Treasury.....	2,034.54	
Unexpended Balance Appn.....	11,891.43	\$32,147.48
		<u>25,761.00</u>
Paid into State Treasury.....		<u>\$57,908.48</u>
Receipts	\$25,761.00	
Expenses	18,221.50	
Surplus	\$7,539.50	

TOTAL NUMBER OF BOILERS INSPECTED BY EACH INSPECTOR, TOGETHER WITH FEES, PAID AND UNPAID, FROM JULY 1ST, 1918, TO JUNE 30TH, 1919.

Inspector	PAID		UNPAID		TOTAL	
	Boilers	Fees	Boilers	Fees	Boilers	Fees
R. Moran	1,123	\$ 7,870	205	\$1,320	1,328	\$ 9,190.00
R. A. Prater.....	507	3,385	92	645	599	4,030.00
F. J. Coburn.....	469	3,030	126	715	595	3,745.00
Totals	2,099	\$14,285	423	\$2,680	2,522	\$16,965.00

SALARIES AND EXPENSE OF INSPECTORS, TOGETHER WITH NUMBER OF BOILERS INSPECTED AND COST PER BOILER INSPECTED, FROM JULY 1ST, 1918, TO JUNE 30TH, 1919.

Inspector	Salaries	Expenses	Total	Boilers Inspected		Cost per Boiler
				Inspected	Boiler	
R. Moran	\$2,500.00	\$2,554.44	\$5,054.44	1,328		\$3.80
R. A. Prater	2,500.00	1,438.03	3,938.03	599		6.57
F. J. Coburn	2,500.00	522.75	3,032.75	595		5.09

NUMBER OF LICENSES OF VARIOUS CLASSES ISSUED DURING THE YEAR, AND FEES RECEIVED FOR SAME.

Class of License	No.	Fees
First Originals	129	\$ 967.50
Second Originals	175	875.00
Third Originals	679	2,037.00
Traction Originals	435	1,305.00
A. & E. Originals.....	18	102.50
Low Pressure Originals	21	42.00
First Renewals	938	938.00
Second Renewals	563	563.00
Third Renewals	958	958.00
Traction Renewals	752	752.00
A. & E. Renewals.....	30	30.00
Cuts and Rejections.....		226.00
Total		\$8,796.00

BOILER AND LICENSE FEES RECEIVED BY YEARS, TOGETHER WITH NUMBER OF BOILERS INSPECTED AND INSPECTORS EMPLOYED, AND EXPENSES OF OFFICE.

Year	Inspectors Employed	Boilers Inspected	Boiler Fees	License Fees	Total Fees	Expenses of Office
1901	2	738	\$ 4,775.00	\$4,404.50	\$ 9,197.50	\$ 7,431.64
1902	2	867	5,470.00	4,098.00	9,568.00	7,967.50
1903	2	903	5,655.00	4,151.50	9,806.50	7,700.00
1904	2	982	5,880.00	4,175.00	10,055.00	7,699.34
1905	3	1,306	8,255.00	5,198.50	13,453.50	9,622.30
1906	3	1,474	9,210.00	6,531.50	15,741.50	10,016.44
1907	3	1,559	9,845.00	8,304.50	18,149.50	11,228.78
1908	3	1,734	11,380.00	7,371.50	18,751.50	11,408.77
1909	3	1,800	11,880.00	7,623.00	19,503.00	11,352.20
1910	3	2,021	10,425.00	9,034.00	22,459.00	11,647.77
1911	4	2,202	15,130.00	8,235.50	23,365.50	14,821.98
1912	4	2,020	13,935.00	8,354.50	22,289.50	15,200.00
1913	4	2,260	15,260.00	9,181.50	24,441.50	14,700.00
1914	4	2,041	13,250.00	8,009.00	21,259.00	15,300.00
1915	4	1,919	12,185.00	8,386.50	20,571.50	16,290.00
1916	4	1,960	11,135.00	8,859.00	19,994.00	16,510.06
1917	3	2,358	15,040.00	9,962.00	25,002.00	16,747.42
1918	3	2,522	16,965.00	8,796.00	25,761.00	18,221.50

STATEMENT SHOWING BY MONTHS BOILER FEES COLLECTED BY INSPECTORS AND THROUGH THE OFFICE ACCOUNT, WORK OF EACH INSPECTOR, FROM JULY 1ST, 1918, TO JUNE 30TH, 1919.

1918	R. MORAN				R. A. PRATER				F. J. COBURN				TOTALS			
	By Inspector	By Office	Total	By Inspector	By Office	Total	By Inspector	By Office	Total	By Inspector	By Office	Total	By Inspector	By Office	Total	Total
July	\$1,080	\$	\$1,080	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$1,385	\$	\$	\$2,690
August	405	480	885	260	700	960	185	500	685	850	1,680	2,530	850	1,680	2,530	
September	325	375	700	20	330	350	160	270	430	565	1,480	1,925	565	1,480	1,925	
October	285	220	505	10	325	335	30	130	160	325	675	1,000	325	675	1,000	
November	95	275	370	5	70	75	5	155	160	165	500	665	165	500	665	
December	45	140	185	.....	75	75	20	25	45	65	240	305	65	240	305	
1919—																
January	5	230	235	10	150	160	10	25	35	25	405	430	25	405	430	
February	10	110	120	5	95	100	.....	80	15	15	285	300	.....	285	300	
March	235	70	305	70	155	225	.....	55	55	305	280	585	.....	305	280	
April	645	135	780	265	245	510	15	620	635	925	1,000	1,925	.....	925	1,000	
May	1,090	535	1,625	295	195	490	50	180	230	1,435	910	2,345	.....	1,435	910	
June	905	855	1,760	40	445	485	10	515	525	955	1,815	2,770	.....	955	1,815	
Totals	\$5,125	\$4,065	\$9,190	\$1,145	\$2,885	\$4,030	\$625	\$3,120	\$3,745	\$9,895	\$10,070	\$16,965				

STATEMENT, BY MONTHS, OF BOILERS INSPECTED, APPLICANTS FOR LICENSE EXAMINED, FEES COLLECTED BY EACH INSPECTOR AND FEES RECEIVED FOR RENEWALS, FOR YEAR COMMENCING JULY 1ST, 1918, AND ENDING JUNE 30TH, 1919.

1918—	R. MORAN				R. A. PRATER				F. J. COBURN				TOTAL			
	Applicants Examined	Fees Received	Applicants Examined	Fees Received	Applicants Examined	Fees Received	Applicants Examined	Fees Received	Applicants Examined	Fees Received	Applicants Examined	Fees Received	Applicants Examined	Fees Received	Applicants Examined	Fees Received
July	51	\$ 972.00	26	\$120.00	21	\$	161.50	6	\$29.50	\$ 317.50	104	\$ 920.50	73	\$ 582.00	104	\$ 3,620.50
August	74	314.00	35	158.50	13	127.00	14	48.00	327.50	327.50	136	975.00	53	516.50	136	3,505.00
September	31	159.50	15	66.00	20	88.50	10	36.50	383.00	383.00	76	733.50	68	641.00	76	2,213.50
October	43	202.00	26	105.50	20	176.00	2	6.00	297.50	297.50	91	787.00	107	882.50	91	2,608.50
November	43	192.50	4	31.50	16	117.50	4	18.50	280.00	280.00	67	640.00	101	777.00	67	1,937.00
December	34	170.00	7	38.50	17	103.00	4	16.50	198.50	198.50	62	526.50	103	863.50	62	1,937.00
1919—																
January	40	188.00	16	68.00	15	104.50	2	6.00	215.50	215.50	73	582.00	103	863.50	73	2,213.50
February	28	174.50	8	42.00	14	108.00	3	9.00	183.00	183.00	53	516.50	68	641.00	53	1,937.00
March	37	165.50	21	104.50	10	123.00	.....	4.00	214.00	214.00	68	641.00	107	882.50	68	2,213.50
April	60	296.00	20	99.50	23	140.00	5	14.00	324.00	324.00	107	882.50	101	777.00	107	2,608.50
May	62	254.00	13	72.00	21	115.00	4	21.00	215.00	215.00	101	777.00	103	863.50	101	2,608.50
June	67	319.50	14	59.50	16	120.00	6	21.00	283.50	283.50	103	863.50	103	863.50	103	3,515.50
Totals	570	\$2,707.50	205	\$965.50	206	\$1,484.00	60	\$230.00	\$3,409.00	\$3,409.00	1,041	\$8,796.00	1,041	\$16,965.00	1,041	\$25,761.00

FOURTH ANNUAL REPORT

FINANCIAL STATEMENT, COAL MINE INSPECTION DEPARTMENT,
FROM JULY 1ST, 1918, TO JUNE 30TH, 1919.
RECEIPTS.

From Appropriations:		
Unexpended Balance	\$ 2,973.58	
For Salaries and Expenses.....	4,500.00	
	<u> </u>	\$ 7,473.58

DISBURSEMENTS.

Salaries and Expenses.....	\$ 4,349.69	
Unexpended Balance	3,123.89	
	<u> </u>	\$ 7,473.58

FINANCIAL STATEMENT, QUARTZ MINE INSPECTION DEPARTMENT,
FROM JULY 1ST, 1918, TO JUNE 30TH, 1919.
RECEIPTS.

From Appropriations:		
Unexpended Balance	\$ 5,547.17	
For Salaries and Expenses.....	7,000.00	
	<u> </u>	\$12,547.17

DISBURSEMENTS.

Salaries and Expenses	\$ 5,090.18	
Unexpended Balance of old Appropriation Turned into State Treasury	1,209.29	
Unexpended Balance	5,428.70	
	<u> </u>	\$12,547.17

REPORT: BOILER INSPECTOR R. MORAN.
Northern District.

Helena, Mont., July 1st, 1919.

Industrial Accident Board,
Hon. A. E. Spriggs, Chairman,
Helena, Montana.

Gentlemen:

I herewith submit report covering my work as Boiler Inspector for the period from July 1, 1918, to June 30, 1919.

The last Legislature amended the Revised Codes of Montana so as to bring under the charge of the Department all boilers in the State, except those in private residences and locomotives used on railroads. This brought dinkey locomotives, which are classed as traction engines, cast iron boilers in public buildings and all other boilers over 5 H. P. capacity, all of which had heretofore been exempt from inspection, under the law. Since this law went into effect I have inspected numerous cast iron boilers used for heating purposes in office blocks, rooming houses, hotels, schoolhouses, etc., and the results of such inspections have confirmed the opinion I expressed in my last annual report, that public safety required that these boilers be given close and careful attention. The law now also provides that the persons operating these boilers, and other boilers used for heating purposes, where not over thirty pounds pressure is allowed, must hold low pressure license. This is a great move in advance and will add to public safety, comfort and convenience. I have also inspected numerous dinkey locomotives and am glad to be able to report that nearly all of them were in good condition, and when repairs were needed they were at once made by the owners when they were so advised.

In the course of my work I have been over my district several times and have followed my former practice of notifying users of steam machinery, as far ahead as possible, of the date when I would inspect their boilers, and the owners and operators of all classes of steam machinery and the engineers in charge of same continue to afford me all the aid

they possibly can and readily and promptly accede to all suggestions tending to the improvement and welfare of their plants.

I desire to thank the owners and operators of steam plants and the engineers in charge thereof for their aid and assistance and for not only their readiness to respond to suggestions, but also for their evident desire to do everything possible to make conditions better and safer for their employees and for the general public.

During the twelve months covered by this report I have inspected 1,328 boilers and have examined 570 applicants for license.

I beg to thank the members of the Board for courtesies extended and aid given me in the discharge of the duties of my office as Boiler Inspector.

Very respectfully,

R. MORAN,

Boiler Inspector, Northern Division.

REPORT: BOILER INSPECTOR R. A. PRATER.
Eastern District.

Billings, Mont., July 1st, 1919.

Industrial Accident Board,
Department of Boiler Inspection,
Helena, Montana.

Gentlemen:

I beg herewith to submit to you a brief summary of the work for the annual period ending June 30, 1919, so far as it relates to the inspection of boilers and the issuance of licenses for steam engineers in the district assigned to me by your Board.

From June 30, 1918, to June 30, 1919, I performed the following services: 593 boilers were thoroughly inspected, both inside and outside, in which work it was necessary to travel a distance of 5,615 miles, at an expense of \$1,437.85. Fees amounting to the sum of \$5,019.00 were collected and remitted to your office.

In addition to the foregoing, I examined 320 applicants for steam engineers' licenses, and made 400 recommendations for safe and economical operation of steam boilers.

In the performance of the foregoing services five boilers were condemned, which narrowly averted explosions with dire consequences.

In all of this work I met with the hearty co-operation of the owners of the boilers, who seemed to realize fully the extent and importance of the work being done by your department.

In conclusion, I wish to thank your Board for the hearty support and co-operation which you have so generously extended to me in the performance of the foregoing services.

Respectfully submitted,

R. A. PRATER.

**REPORT: BOILER INSPECTOR F. J. COBURN.
Western District.**

Helena, Mont., July 1, 1919.

Industrial Accident Board,
Hon. A. E. Spriggs, Chairman,
Helena, Montana.

Gentlemen:

In compliance with your instructions I have the honor to herewith submit a brief statement in the nature of a report, covering the work done by me for the State in the capacity of Boiler Inspector for the Western District, with headquarters at Butte.

During the past twelve months I have inspected 613 boilers and examined 200 applicants for engineers' licenses.

In the course of the work of inspection I found it necessary to insist upon many repairs to boilers, and in several instances insisted upon boilers being retired from commission because of the bad condition. I am satisfied that if it had not been for the inspection required by law, followed by my insistence upon the boiler being put out of commission, that disastrous accidents would have occurred.

It is a gratifying fact that so far during my incumbency of the office of Boiler Inspector for this district, there has been no serious accident of any kind, either to steam boilers or engineers in charge of same.

My work of inspection has been facilitated at all times by the prompt co-operation of the owners and operators of steam plants, and I have endeavored to show my appreciation of their courtesy by prompt efficient work in the matter of the inspection of their various plants.

The new law, providing for the inspection of so-called cast iron boilers or heating boilers in public buildings, is not very well understood by the owners and operators of business blocks, but I am satisfied when it is that they will appreciate the protection that it affords both in the matter of care and maintenance of the plant, as well as in better service rendered by the fireman on account of the necessity of his passing an examination.

Thanking the Board for the courtesy that has been extended to me in the performance of my duties, I remain,

Very respectfully yours,

F. J. COBURN,
Boiler Inspector.

REPORT: BOILER INSPECTOR G. A. REDDING.
License Examiner—Helena.

Helena, Mont., July 1, 1919.

Hon. A. E. Spriggs, Chairman,
Industrial Accident Board,
Helena, Montana.

Dear Sir:

In compliance with your request I herewith submit a brief statement, covering the work I have done for the department for the year ending June 30, 1919.

During the year I have examined sixty applicants for license and have collected from such applicants fees amounting to \$230.00.

Nearly all of these applicants came from points outside of Helena, and they would have been seriously inconvenienced had there been no Inspector in the Capital City to take care of them when they appeared for examination.

The last Legislature established a new grade of license called Low Pressure license, covering heating plants in public buildings where not over thirty pounds' pressure is allowed on boilers. Heretofore the firemen in charge of such plants were required to hold third class licenses and the new classification is of great benefit to all concerned, as it allows men to qualify for this grade who have not had sufficient experience to operate as third class engineers, but who are amply qualified for operating such heating plants. It also allows the Inspectors to hold those applying for third class license to a stricter examination as to their qualifications for such grade of license, and will result in making the third class license mean more to engineers than it has in the past.

Thanking the members of the Board for courtesies and assistance extended to me in my work during the past year, I remain,

Very respectfully,

G. A. REDDING,
Inspector, Central District.

Helena, Mont., July 1st, 1919.

REPORT: QUARTZ MINE INSPECTOR W. B. OREM.
Covering Entire State.

Helena, Mont., July 1st, 1919.

To the Industrial Accident Board,
Hon. A. E. Spriggs, Chairman.

Gentlemen:

No industry in the State was so adversely affected by the sudden change from war to peace as mining.

Up until November 11, 1918, it seemed that the year 1919 would start with a rush in metal production and keep

going at a strong gait—in fact it was predicted last fall that, barring the unforeseen, Montana would have a banner year in 1919.

However, man proposes and God disposes. The signing of the armistice found the world glutted with copper supplies. The United States and her allies had urged copper producers to produce at full speed during the war so as to have ample supplies of the red metal for any possible emergency. This the producers did. Peace came suddenly. Overnight the world learned that hostilities had ceased. The warehouses held, or there was in transit, more than 1,000,000,000 (a billion) pounds of copper on hand. With the salvage from the European battlefields it amounted to a billion and a half pounds. Never before had the world known such a surplus.

This caused consternation in the industry. The year 1919 ushered in a period of uncertainty with the copper producers, and we must always bear in mind that copper is the major metal so far as Montana is concerned.

The law of supply and demand is inexorable. With no world market for copper, with the war demand suddenly killed and the domestic demand not yet reawakened after lying dormant for three years, the copper producers were, in many instances, forced to suspend operations. Some of the larger companies endeavored to continue on a reduced scale. It also became necessary to reduce wages in the copper districts and this was followed at first by evidences of dissatisfaction among the workers.

The mining companies of Montana reduced output from 30 to 50 per cent and waited a change in market conditions. As the year has advanced improvement has been noted. The price of copper fell from 30 cents to 15 cents in a short time, but this price has gradually improved as a domestic demand became keen and at this writing (July 1st, 1919) copper is selling around 19 cents with good chances of bringing 22 cents or better before the close of the present year.

Labor a Factor.

Labor is a bigger factor in producing raw metal today than ever before. Because of the high cost of living there is unrest everywhere and also because of the high cost of

operations the mining companies now operate on a closer margin and they have to keep down expenses and improve efficiency in every way possible.

Professional agitators have done much to reduce the efficiency of labor in the mining districts of Montana.

When it became necessary for the mining companies to curtail, miners' wages were cut from \$5.75 per day to \$4.75, which is the wage at this writing, but will likely be raised to the former figure before the end of the year, as improvement in the copper market will mean a wage advance very shortly.

The mining companies of Montana, like other industries both in this and other states, have had to suffer from the dislocation of industry caused by the change from war to peace conditions.

In the last year of the war they suffered because of the draft on labor for army purposes. Inexperienced men took the places of older heads and this brought down production per man. Then came peace, but there is no surplus of labor now. On the other hand there is a shortage both of skilled labor and of good miners. Readjustment is still under way and until the country has settled down to normal production under normal conditions, the Montana mining companies will experience many trials in getting out the rock.

The Mining Future.

Prospects are very bright for the future, the only handicaps being labor shortage and unrest. While all supplies that have to be purchased by mining companies have advanced, many of them as high as 75 per cent, this will be partly offset by the higher price the metals are certain to bring. Commodity prices will probably never again sell as low as prior to the great war. Labor will also expect a higher standard of wages and living. And to meet these advances the companies will naturally expect, and obtain, a better price for the metals.

As predicted in my report last year, peace has served as a bull factor for silver and the white metal is in great demand, the supply being purchased by India and China alone being enormous. Silver has been bringing better than a dollar per ounce for some time and the high mark has not

been reached. As silver is an important by-product with the copper mines of Montana, its advancing price will help materially.

European countries will not set to work to arrange their credit until peace has been signed. Germany formerly bought 60 per cent of America's copper export. The foreign market is always a big factor with American producers of copper and silver and this market is now beginning to reach out for the American product. All this means higher prices for the metals and a harbinger for general prosperity.

As usual, Butte leads. Butte is still the world's greatest silver and copper producing district. It is also well up in the front ranks as a producer of zinc. Her mines are marvels for continuity and regularity of vein system. It is estimated that there are thousands of millions of pounds of copper still stored in the wonderful Butte hill.

Some of Butte's mines are now producing at a depth approaching 4,000 feet.

The wonder of Butte's ores is the fact that all are of commercial nature. Copper, silver, gold and zinc come out of the Butte ores in paying quantities.

The Anaconda Copper Mining Company is still the leading producer in Butte and Montana. The Clark interests mine considerable copper. Their Elm Orlu mine is a large zinc producer. The Butte & Superior Company has in the Blackrock mine the greatest of all individual zinc producers. The North Butte Company is a large copper and silver producer and the Tuolumne and Davis-Daly Companies are looking better every day and shipping larger quantities of commercial ore.

Peace Hurt Manganese.

It was unfortunate that peace reduced the demand for manganese ore. During the war the little camp of Philipsburg furnished the bulk of the high grade manganese ore of the world, and when we consider how important was this product in the steel and munitions making industries, it becomes more interesting. But the demand is now largely curtailed.

Butte the Leader.

Butte still produces more than three-fourths of the mineral output of Montana. Butte's pay roll is the largest in the world for any one single mining camp or district, and is larger than the pay roll of any city of the world of three times its population. The Butte hill has given to the world more than eleven hundred million dollars in copper ore. Many times that amount is still stored beneath the streets of this remarkable city. Montana has many farms, any one of which covers a larger area than the single spot in Butte which has given to the world untold billions.

Other Camps Active.

One of the brightest signs of the future is the increased demand for silver and many little properties that have been neglected for years are now blossoming forth as real producers of the white metal. Philipsburg is producing some silver. So is the Georgetown district. So are some of the districts around Helena. Increased activity is noted in the Rimini, Clancy Basin and Neihart districts. Before the year 1919 is over I look to see dozens of new properties started in search of silver, for the demand for this metal is now greater than at any time since silver was demonitized in the early nineties.

Mining an Empire Builder.

Montana would still be a sage brush state, known only for cattle grazing and some farming, but for the tremendous pay roll maintained by the mining companies. It is a mistaken idea to think that this state in its entirety does not receive great benefit from the mining pay rolls. The mining companies of Montana pay out an average of seventy-five millions a year for labor and supplies. They support directly one hundred thousand people and indirectly are of great benefit to at least one-half the state's population. For every \$3.00 taken from the ground, \$2.00 remains in the state.

Better Understanding Desired.

It is unfortunate that the larger industries of Montana are not all in working accord. Were the interests of all the state's vast natural resources working in harmony, there would be no limit to the possibilities this commonwealth

might achieve. It is unfortunately true that in agricultural circles the mining companies are regarded somewhat with suspicion. It would be a wonderful step forward if every interest in the State would agree to wipe the old slate clean and go forward from here under the same banner and with the same motto, viz.: the development and upbuilding of Montana for Montanans. Such a realization is possible when everybody realizes that the farmer, the stock raiser, the lumberman, the banker, the merchant and the mining operator will all prosper through co-operation.

Water Liners and Stoppers.

The water liner drills have been one of the greatest benefits to the operators and men working in the mines of any machinery introduced in years. From the standpoint of health, it does away with all dust caused by drilling dry holes, forcing the miners operating them to breathe the dust, this being the direct cause of the so-called miners' consumption or lung trouble. Every hole is drilled wet, thus eliminating all dust that used to occur with the old drills. From the operators' standpoint, it drills more ground, is easier to handle, a great deal lighter, drills a great deal faster and gives better results to all concerned. Why not improve everything that is a benefit to the miner? If he is benefited, so is the operator.

Montana is blessed with a high standard of mining men and operators. They get the best that money can buy. Anything that can improve conditions and will give results is given a fair trial and if it proves satisfactory, it is installed regardless of cost.

Why Mines Are Not Found.

Why there are not more mines found can be easily explained. The days of the old prospectors have ended and the rising generation clings to the large city, its gay life and bright lights, and the farmer clings to his lands. In all the years I have been connected with this department, I have not seen a dozen prospectors with their pack horses as in the early days, enduring the hardships of a pioneer miner, who always believed that the next round of holes drilled would make him a rich man. The young men growing up in this age are trained along different lines. They have not

endurance and do not believe in working hard like our pioneer miners did in seeking gold fields. One only has to visit Bannack, Virginia City and the old diggings around Helena, to see what kind of men the miners and prospectors were. Can you get men to shovel and dig the gravel like they did in those placer days? There would be strikes every day. The old prospectors are like the buffalo, who roamed the plains at the same time—both have gone, to come back no more. There will have to be some inducement. The large operating company will have to hire men for field work or there will not be many new mines discovered. This is a serious matter and should be given due consideration by all men interested in mining.

Ventilation.

The greatest problem encountered in deep mining is the question of proper ventilation. From my observations I am of the opinion that the correct way of getting good air into the mines is by air shafts separate entirely from the hoisting shaft and keeping these air connections as deep as the main working shaft. Two separate connections to the bottom level of the mine will secure circulation that cannot be secured by any other means. Any one familiar with the working of the mines knows that it is impossible to ventilate a mine if your air shaft is not kept as deep as your working shaft. With the proper equipment on air shaft you are bound to get returns. Where air shafts are carried down from the surface and workings with the connections made in different mines a circulation of pure air is given. When two shafts are sunk or raised to a common depth, as a consequence one will be an upcast. At various mines where the connections by means of air and development shafts have been made to the lowest level, the ventilation is all that can be expected. I believe every mine should have its own air shaft and not depend upon connections with other mines. Air shafts should be sunk or raised in solid ground from mine workings and connections made with air shafts by cross cutting. By placing doors in these cross cuts it is possible to convey air through any part of the mine. In some instances connections made with other mine workings, as far as ventilation is concerned, are a detriment rather than a benefit, as the air so received may have become im-

pure by use in other workings. While it appears to be good air, it is not; the effect is soon noticed on one working. Connections with other properties are necessary for the safety of men. While most mines have several escapement shafts, it is not always possible to have men located so that they are out of danger. If these connections are considered detrimental to other properties, they can be closed by doors to be used in a case of necessity. All companies realize that it is impossible to get the same amount of work out of men when the air is poor, and, therefore, it is to their advantage to secure the best possible ventilation. The cost of making proper air connections is soon made up in labor saving. The large companies are installing electric fans on nearly all their air shafts with good results. It is my opinion as the mines continue in depth it will be necessary to work fewer levels so that the air can be concentrated in larger volumes, giving better results. In some of the lower workings the water coming out of the solid rock has a temperature of a hundred degrees and by mechanical devices known as fans and blowers with proper shaft connections, the temperature is reduced from twenty to thirty degrees. That large operating companies are realizing these conditions can be seen by the following expenditures along these lines.

Ventilation by the Anaconda Company.

Beginning with February 1st, 1918, the installation of larger surface fans, booster fans in the underground mine air course and fans in the raises and long dead end drifts was begun.

These installations, when completed, will more than double the volume of air which was passing through the mines at that date.

With few exceptions the ventilation of each mine is independent of other mines, but where one large upcast shaft or exhaust fan is serving more than one mine, the main operating shafts of those mines are downcast. At present all the operating shafts are downcast, with two exceptions, so that in case of fire the smoke would be drawn away from the shafts through which the men would be hoisted.

All the mines are inter-connected on the main levels. These connections are provided with concrete bulkheads and iron doors. Direction signs showing escapes to adjoining mines are posted along the various levels.

Previous to 1918 all surface fans were exhaust fans, but since that time all fans have been installed to operate as exhaust or as blowers so that in emergencies the air currents may be reversed.

In connection with the general plan of mine ventilation all upcast air shafts, in ground where there is no tendency toward crushing or swelling, are being smooth surfaced with concrete slabs to prevent the eddying of air currents around the shaft timbers. This work not only increases the air carrying capacity of the shafts, but also serves as an ideal fire protection. The Parnell shaft is completed and work is progressing at the Green Mountain, Silver Bow No. 2 and Silver Bow No. 3.

The following table shows the volume of air now circulating through the mines, and also the volume of air circulating when the air shafts have been surfaced and the new fans installed:

Shaft	Vol. of Air in Cu. Ft. per Min.	
	Present	Future
Emily	35,000	60,000
Moose	40,000	100,000
Corra	83,000	150,000
East Gray Rock.....	37,000	60,000
Green Mountain	65,000	150,000
Parnell	135,000	260,000
Mat	40,000	70,000
East Steward	38,000	38,000
Parrot	54,000	200,000
West Gagnon	100,000	175,000
East End Line	60,000	60,000
St. Lawrence Yard	95,000	100,000
Molly Murphy	25,000	100,000
Anaconda	35,000	60,000
Never Sweat	30,000	-----
Colusa-Parrot	-----	70,000
Mountain View No. 116 Raise.....	46,000	70,000
Mountain View No. 270 Raise.....	47,000	70,000
West Colusa Air Raises.....	65,000	150,000
East Colusa Air Shaft.....	47,000	125,000
Mitchell	45,000	125,000
Liquidator	-----	250,000
Tramway No. 4 Air Raises.....	60,000	125,000
Pennsylvania Old Air Shaft.....	75,000	-----
Pennsylvania New Air Shaft.....	-----	200,000
Silver Bow No. 1.....	35,000	-----
Silver Bow No. 2.....	-----	60,000
Silver Bow No. 3.....	-----	70,000
Snohomish	43,000	60,000
Nettie No. 2.....	28,000	40,000
Emma	20,000	60,000
Lexington	20,000	-----
Josephine	-----	35,000
Tropic	20,000	20,000
Poulin	30,000	30,000
Alice	35,000	35,000
Total	1,488,000	3,178,000

At present 250 cubic feet of air per minute per man underground is being supplied, while in the near future more than 300 cubic feet per minute per man will be supplied.

This figure is higher than required by law in any other metal mine of the world and exceeds that required in most coal mines.

A ventilation engineer is employed with direct supervision over all mine air problems.

Auxiliary Blowers and Tubing.

For the ventilation of dead ends and places where the ventilation is poor in the mines, a great number of auxiliary fans and tubing have been placed. At present the Butte mine equipment consists of 129 fans and 44,000 feet of tubing, with new equipment consisting of 300 fans and 93,000 feet of tubing being prepared, which will give a total of 429 underground fans and 137,000 feet of tubing.

Booster Fans.

Many large fans have been or are being installed in the lower levels of the larger mines in the main air courses to aid in increasing the amount of air flowing to the main surface fans.

Cost of Mine Ventilation Work in 1919.

The estimated cost of this work for 1919 in the Anaconda Company mines is \$531,000.00. The additional cost of concrete slab work in upcast shafts will bring the total expenditure for 1919 up to \$1,000,000.00.

The North Butte Mining Company has two operating shafts on the Butte hill, one the Speculator shaft and the other the Granite Mountain, the latter being the deepest shaft in the Butte district. There are also two upcast air shafts from the mine which are not hoisting shafts, namely, the Rainbow and the Gem. Three of the above shafts have blowers on them for ventilation, the one at the Speculator shaft being capable of handling 150,000 cubic feet per minute, and the ones at the Rainbow and Gem shafts 50,000 cubic feet per minute, respectively. All of these fans are reversible, so that they can be quickly used in case of fire. The fans at the Rainbow and Gem shafts are of monolithic concrete construction, while the one at the speculator is of galvanized iron construction. The Granite Mountain shaft is

smooth lined, and is 3,700 feet in depth. From the 1,500-foot level to the 3,100-foot level it is of monolithic concrete construction, as are also the stations, these being arched similar to railroad tunnels. This shaft cost approximately \$200,000 to construct. The smooth lining of the shaft causes about fifty per cent more air to go into the mine, this shaft being the main downcast shaft of the property. The air is cool at the lowest level of the shaft, being approximately 67 degrees, varying slightly from summer to winter. This air is forced through the main air channels of the mine. Fans with canvas tubing are used to force air into the various dead ends of the mine, the result being that the mine is well ventilated throughout all its workings.

This being the first concrete shaft in the district, there was a great deal of comment made in regards to it staying in place. It was the supposition that the movement of the ground would cause it to move out of line, so it would be impossible to work, but it was a mistaken idea, because up to date it has remained in line just the same as it was when completed, proving that reinforced concrete used in shafts away from the veins give good results, as proven by the one constructed by the North Butte people. This is one of the best ventilated mines in this district and is ably managed by Norman Brauly.

All mines in the Butte district are ventilated along the same lines. The Davis-Daly mine just completed a connection from the 2,800-foot level of the Belmont mine to their 2,500-foot level, which is giving good results, both in the matter of air and the working conditions of the mine, as well as furnishing another independent safety exit.

Fire Protection in Shafts, Stations and Levels.

In 1917 the Anaconda Company decided to fireproof all of its main operating shafts. The method determined upon was that of surfacing all the shaft timbers with metal lath and then applying a coat of concrete with a cement gum. This work is known as guniting, and when finished it gives a coating of from one-half to three-quarters of an inch thick and provides an absolutely fire-proof shaft.

All level stations, fan installations and high tension cable drifts are similarly protected.

The shafts and stations of the Tramway, Rarus, East Colusa, High Ore, Moonlight and Belmont mines are gunited at this date. This work is now going on at other shafts, and as soon as possible all operating shafts will be so protected. The shafts being fireproofed at this time are the Leonard, Pennsylvania, Mountain View, Bell, Original and Never Sweat. Main surface tunnels leading from power plants to shafts are also being gunited. The company is spending \$50,000.00 per month on this fireproofing work.

Butte & Superior during the past year has done a great amount of work toward improving conditions relative to fire protection and prevention throughout the mine.

FIRST: WATER LINES IN SHAFTS.

No. 3 shaft, which is the main hoisting shaft, is equipped with perforated water ring a few feet below the surface into which city water can be turned in case of fire in the shaft.

No. 2 shaft, which carries the electric power lines into the mine, has a water line with perforated rings every 200 feet from the 800 level to the 1,600 level, which works similar to that of the water ring in No. 3 shaft. A separate line which is used for supplying water to the machines for drilling and for drinking purposes underground is arranged so that it can be connected to the air lines, by opening a valve between the two, and is kept closed in ordinary working conditions. This will allow water to be conducted to any of the stopes through the 2-inch air lines in case of fire. At the collar of the shaft, in a hose house, a reel of fire hose is mounted on a truck which can be run on to a cage and lowered to any level in case of fire. There is also a small blower fan, directly connected with an electric motor, mounted on a truck so that it can be run to any part of the mine to supply air for men fighting fire.

SECOND: GUNITING.

All stations are planned to be gunited with a $\frac{3}{4}$ -inch coat of cement to serve as fire protection for station timbers. This work is being pushed forward as fast as possible and to date is about half completed.

THIRD: BULKHEAD DOORS.

One hundred and thirty substantial bulkhead doors of concrete or 12x12 cribber, coated with plaster or gunite, have been installed in the mine from the surface to the lower level. These bulkheads are equipped with double steel doors so as to allow a man to close one before opening the other as he passes through. These doors are placed between each shaft and the working between each shaft so as to isolate in case of fire either of the shafts from the other and the workings. They are also placed between the workings and any connections made with adjoining mines.

Safety First, First Aid and Rescue Work, Anaconda Co.

The Safety First Department is as well organized and active as any similar organization in the country. Its duties consist of regular inspection of all working places in the mines and on the surface, the investigation of all mine accidents and co-operation with the claim department on accidents and compensation matters. It compiles monthly reports of accidents and special reports on all serious accidents.

First Aid and Rescue Work.

This work is directly under the supervision of the Operating Department and is a branch of the Safety First Department.

Two rescue stations are maintained by the company; one at the Anaconda mine and one at the Tramway mine.

The equipment consists of two Cadillac ambulances, three rescue service trucks, eighty-six rescue sets and other necessary equipment. Trained men are on duty at these stations ready for emergency calls at all hours of the day and night.

Up to date this department has trained twelve hundred men in first aid, eight hundred of whom have also trained in mine rescue work.

At each mine a first aid crew is maintained, and first aid supplies are kept at convenient places for use in case of accidents. All mine bosses have been instructed in first aid and mine rescue.

All possible safeguards in and around the mine workings, such as trolley wire guards, chute and manway guards, gates at stations and on cages, etc., are maintained by constant inspection.

Butte & Superior Dead End Safety Stations.

On each level a dead end safety station has been cut which isolates it from the workings and which is conveniently located. These safety stations are equipped with a concrete bulkhead with a steel door into which air and water lines are run and a water barrel placed to be used in case of emergency if men are trapped and have to close themselves in in case of fire.

Sanitation.

Toilet cars have been placed on every level in the mines and are brought to the surface every day, flushed and disinfected. On the surface, concrete septic tanks are being built to replace the old cess pits, for disposal of sewerage matter.

Ice water is provided in covered kegs or special tanks on each level and these are cleaned and refilled every day, and in many cases twice a day. Sanitary drinking fountains are being installed at all surface plants and at each mine.

The change houses on top at each mine are well heated, ventilated and equipped with steel lockers, wash rooms and shower baths. The floors are of cement, and a janitor is on duty 24 hours of the day.

Hydraulic Filling in A. C. M. Co. Mines.

For twenty years the Butte district's worst drawback was the fire that has been burning in the different mines, but it has finally been solved by Chauncy L. Berrian, General Superintendent of Mines for the Anaconda Company, described as follows:

In 1917 it was decided to employ hydraulic filling as an aid in combatting the mine fires existing in portions of the West Colusa, Leonard and Tramway mines. The fire area is relatively small, but because of the inter-connection of workings, it was necessary to seal off a considerable part of these mines to prevent the spread of the fire and escape of gases into active workings. It was purposed, therefore, to completely fill all the areas enclosed by the fire bulkheads, level by level, from the bottom up.

This project required a material sufficiently fine to penetrate and fill the interstices of the already waste filled stopes. The most readily available and suitable material was the tailings of the Butte & Superior concentrating mill, and arrangements were made for their use.

The tailings, averaging about 25 per cent by weight solids, are conducted by a flume over 3,600 feet long with a 2 per cent grade from the B. & S. tailings dump to the collar of the Reins shaft, where they enter the filling pipe lines. The main lines, consisting of 6-inch inside diameter cast iron pipe about 0.8-inch thick, are continued from the collar of the Reins shaft to a point near the Leonard No. 2 shaft, where branches of the same size carry the filling either to the Tramway or East Colusa shafts, through which they are conducted to the 1,700-foot level Tramway and 1,900-foot level Leonard mines. The mains extend on these levels to various distributing points. From the surface to the 1,900-foot level is about 1,740 feet, and the distance from the Reins shaft to the farthest distributing point on the 1,900-foot level is about 3,200 feet. In order to approach the stopes to be filled, about 3,600 feet of new drifts, cross-cuts, raises, etc., have been driven. When the filling below the 1,900 is finished, the main line will be installed on the 1,800, and so on.

The tailings are introduced into the stopes, in part, through 2½-inch cased diamond drill holes, of which about 330 with an aggregate length of 21,000 feet have been drilled. These holes are fed from 4-inch C. I. pipe branch lines. Wherever possible, old sealed workings have been entered and distributing pipes of old 4-inch and 3-inch W. I. pipe or "V" shaped wooden launders have been laid to tops of raises, chutes or open points in stopes. This has entailed a large amount of helmet work. Actual filling was started on a small scale and intermittently in September, 1918. Practically continuous operation was begun in December, 1918, and to June 1st, 1919, about 130,000 tons of solids and 97 million gallons of water had been introduced. To June 1st the filling had been completed from the 2,000 to the 1,900-foot level of the Leonard, in all but a small portion of the Tramway mine between the 2,000 and the 1,700-foot level, and in the West Colusa, as well as in a few small stopes be-

tween the 1,700 and 1,500-foot levels of the Tramway. Filling has just been started between the 1,900 and 1,800-foot levels of the Leonard.

Arrangements are now being made to materially increase the input by hydraulicking the B. & B. tailings dumps, in addition to taking the current mill tailings.

To the present time it has not been possible to enter any filled stope from the bottom, but, by the examination of these stopes by test drill holes, it has been proven that the stopes are completely and compactly filled. Furthermore, there has been a reduction of temperature and no trace of gases can be found at the bottom of the lift filled.

Anaconda Company's New Stack.

The A. C. M. Company has just completed one of the largest and highest stacks in the United States; this stack is supposed to catch all the mineral residue that before this time was dispelled in the smoke. One can realize the magnitude of this stack by the following description:

The new stack at the Anaconda Reduction Works is 585 feet high, 76 feet in diameter at the bottom and 60 feet in diameter at the top. The first brick was laid on May 23rd, 1918, and the last brick was laid November 30th, 1918.

It is of the Alphonse Custodis type. The weight of the brick stack and concrete foundation is nearly 40,000 tons.

The stack has two openings where the flues enter, each 61 feet wide and 60 feet high.

For 68 feet above the foundation the stack is octagonal, and round for the remainder of the distance. It will handle 4,000,000 cubic feet of gas per minute at a velocity of 24 feet per second. The stack was built for the purpose of increasing the draft for smelting operations.

Before entering the stack, the gases pass through Cottrell treaters, where a large percentage of the values is removed. The Anaconda type of Cottrell treater consists of a series of corrugated iron plates, placed in parallel positions, and between the plates chains are hung charged with negative electricity, the plates being grounded. As the gases pass between the plates, the solid particles containing the

values are deposited and fall into hoppers below. This dust, fluxed with suitable material, is smelted in a reverberatory furnace built near the stack, and the values saved.

Fifty per cent of the gas was turned into the stack May 5th, and 100 per cent of the gas on June 9th, 1919.

THE QUARTZ MINING INDUSTRY BY COUNTIES.

Beaverhead County.

For many years has had some very large silver deposits which were worked by shallow shafts, and principally surface workings, but with the high cost of silver it is going to encourage a great many operators to sink several shafts on some very promising silver deposits.

The Elkhorn mining district gives promise of having several producing mines in the near future. The Boston Montana Development Co. has done some extensive work in its claims at the head of Wise river. It is also building a railroad of a narrow gauge type that starts at Divide and goes to the mine at Elkhorn, a distance of about 45 miles. There is also some extensive work being carried on in the Polaris district. The Argenta district gives promise of several mines being in the producing class this coming year.

The Bannack Gold Mining Co.....	Bannack
The New Departure Mine.....	Dillon
Heckla Mine	Melrose
Boston Montana Development Co.....	Elkhorn
Saginaw Mine	Grant
The Original Bannack.....	Bannack
Polaris Mine	Polaris
Kent Mine	Bannack
Jack Rabbit Mine.....	Argenta
Indian Queen Mine.....	Apex

Broadwater County.

Has a splendid mineral showing, but owing to transportation has been handicapped for several years. The mines in this district carry more or less gold values and the ore is of rather low grade, and to get just returns for their products, it would be necessary to install mills. Recently they are installing a mill to work the Keating Gold Mining Company's dumps and the Iron Age is building a mill. If this proves to be a success, it will encourage others.

The Keating Gold Mining Co.....	Radersburg
Montana Radersburg Mining Co.....	Radersburg
The Easterly Mine.....	Radersburg
Black Friday Mine.....	Radersburg
Summit Mine	Radersburg
Three Forks Copper Co.....	Three Forks
Orphan Boy	Winston

East Pacific	Winston
The Washington	Winston
Iron Age	Winston
Iron Mask	Winston
Copper Diamond	Johnson

Cascade County.

Cascade county in former years was one of the large producers in silver, and with the present increase in the price of silver, which has encouraged a great deal of mining, it looks like the old county will regain its future prominence as a silver producer. At the present time the Moulton mine is operating on a large scale. They have also installed a mill with all the latest equipment for the handling of their product, which is giving good results, which will in due time encourage all holders of properties in these districts to start mining on a large scale.

Ripple Group	Neihart
The Big Seven Mine.....	Neihart
The Queen of the Hills.....	Neihart
Snowdrift Mine	Neihart
Broadwater Mine	Neihart
Moulton Mine	Neihart
Florence Mine	Neihart

The Barker district is being worked by leasers.

Deer Lodge County.

Deer Lodge county for many years has been one of the gold producing counties of this State. There are many promising properties around the Georgetown district. When wages become normal and mining supplies are reduced to their former prices, it is more than likely that many mines will be worked in this locality.

The Southern Cross Mine.....	Southern Cross
National Tungsten	Southern Cross
Hidden Lake Mine.....	Southern Cross
Oro Fino Mine.....	Southern Cross
Hold Fast Mine.....	Southern Cross
Short Shift Mine.....	Southern Cross

Fergus County.

Fergus county is one of the gold bearing counties of the State, and has had several mines in a producing class for a number of years. It is also noted for its rich sapphire beds, being the highest class of sapphires mined in the United States.

Barnes King Mine.....	Kendall
London Sapphire Co.	Dodson
Spotted Horse Mine.....	Maiden
Cumberland Mine	Maiden
MacGinnis Mine	Maiden
Kendall Mine	Kendall

Granite County.

Granite county in former years was one of the large producers of silver. The Bi-Metallic mines are supposed to be the richest silver mines in Montana, and with the present increase in the price of silver it is going to encourage a lot of mining along these lines. Last year this county also led the United States in the production of manganese, but after the armistice was signed the producers were without a market, but at the present time there are several mines in this district still mining the high grade manganese. This ore has to be concentrated before it is ready for market. A mill is in process of erection for treating the Black Pine tailings.

Bi-Metallic Mine	Philipsburg
Brooklyn Mine	Maxwell
Sunrise Mine	Maxwell
Black Pine Mine.....	Philipsburg
Manganese Mines	Philipsburg
Pocohontas Mine	Philipsburg
Head Light Mine.....	Philipsburg
Algontoin Mine	Philipsburg
True Fissure Mine (Silver).....	Philipsburg
Beaver Creek Mining Co.....	Philipsburg
Bryant Mine	Philipsburg
Horton Mine	Philipsburg
Donlin Mine	Philipsburg
Two Per Cent Mine (Silver).....	Philipsburg
Scratch All Mine (Silver).....	Philipsburg
Black Pine Mine (Silver).....	Philipsburg

Jefferson County.

This county has a wonderful record for mineral production, second only to that of Silver Bow county, and during the last year there has been much mining activity following the increase in the price of silver. It is safe to predict that before the end of the present year there will be several of the old silver producers located at Elkhorn, Basin, Corbin, Wicks, Comet, Clancy and Lump Gulch, opened up.

At present the Hope and Katie properties at Basin are being equipped with first class modern electrical plants, good for a depth of two thousand feet, and it is reasonable to expect that both of these famous old producers will soon resume their place in the dividend paying column.

At Corbin the old Alta property, which has a mineral production to its credit of upwards of forty million dollars, is being opened up. The Comet mine at Comet, another famous old producer, is being operated by the Montana Consolidated Copper Company, who have shipped a great deal of ore from the property during the past year, and also concentrates from the mill that is operating on the ground.

Among the mines now in operation can be mentioned the following:

Legal Tender	Clancy
Liverpool Mine	Clancy
Little Nell	Clancy
Free Coinage Mine.....	Clancy
Muskegon Mine	Clancy
Angelica Mining Co.	Wickes
Gregory	Wickes
Montana Consolidated Co.	Comet
Shields & Ironside Mine	Boulder
East Butte Mine.....	Elkhorn
Sourdough Mine	Elkhorn
Elkhorn Mine	Elkhorn
Katie Mine	Basin
Baltimore Mine	Basin
Hope Mine	Basin
Comet Mine	Basin
Alta Mine	Corbin

Lewis and Clark County.

This county has many promising prospects. For many years several mines have been substantial producers of gold, and with the many mineral showings that they have in this county, it needs some real men with capital to do some deep developing work. There is no question but if this is carried out many mines will be found in the near future.

The Monarch Mine.....	Rimini
Franklin Mine	Helena
Porphyry Dike Mining Co.....	Rimini
Argo Mine	Canyon Ferry
Scratch Gravel Gold Mining Co.....	Helena

Valley Forge Mine.....	Rimini
Shannon Mine	Marysville
Piegan & Gloster Mine.....	Marysville
O. & M. Mines.....	Helena
Helena Mine	Helena
Bald Butte Mining Co.....	Marysville
Looby Mine	Helena

Lincoln County.

Lincoln county has some large silver and lead deposits. The Snow Storm mine, under the management of Wilbur Greenough, is one of the large producing lead and silver mines of the State. The Hazel T. mine, located at Libby, gives promise of being a substantial producer. Many other promising prospects are to be opened up. Capital is needed to develop these wonderful districts.

The Snow Storm.....	Troy
Hazel T.	Libby
Togo Company	Libby
L. V. Mining Co.....	Troy
Silver Tip Mine.....	Troy
Montana Morning Mine.....	Troy
Snow Shoe Mine.....	Libby

Madison County.

Madison county for years has been noted for its placer mines, which made Virginia City famous. It is believed by many to contain the richest placer diggings in the United States. This claim is substantiated by the record being made by the several gold dredges operating in old Alder Gulch and on the Grasshopper. This county also has many promising quartz mines.

The Little Goldie Group.....	Twin Bridges
High Up Mine	Virginia
Higgins & Bielenberg.....	Twin Bridges
Bismarck Mine	Cardwell
Missouri Mine	Ennis
Revenue Mine	Ennis
Conrey Placer Mine	Alder
Crystal Mining Co.....	Twin Bridges
Lake View Mine.....	Sheridan
Deutchland Mine	Sheridan
Bedford Mine	Sheridan
Lake View Mining Co.....	Sheridan

Powell County.

Powell county gave promise some years ago of being quite a producer in silver and lead, and with the increased price of silver it is only a matter of time until some of the properties that are shut down will reopen.

Old Champion Mine.....	Deer Lodge
Julia Mine	Elliston
Big Dick Mine.....	Elliston

Mineral County.

This county has many prospects with good gold and silver values and also lead, and with the recent increase in the price of silver it is going to encourage more mining along these lines.

King and Queen Mine.....	Saltese
Silver Cable Mine.....	Saltese
Lost Chance Mine.....	Saltese
Tar Box Mine.....	Saltese

Park County.

Cooke City is the most extensively developed district in this county, where there are several attractive properties that have been developed to quite an extent. One of these properties has had upwards of a half million dollars expended on it in development work, while several other properties have had considerable sums expended in opening them up. This work has exposed large bodies of copper ores, carrying gold, silver and lead. Friends of the district insist that there are upwards of two million tons of commercial ore in sight ready for extraction.

Under the management of Dr. Tanzer of Seattle a 200-ton copper matting plant is almost ready for operation.

The good wagon roads through the Yellowstone Park make transportation from the end of the railroad at Gardner to Cooke City less of a handicap than formerly. The Jardine mining district in the southwestern part of the county has extensively developed gold properties, the ores carrying tungsten. During the war hundreds of tons of hand-sorted tungsten were shipped East, and a ten-stamp mill was operated on the low grade ores, turning out a 70 per cent tungsten concentrate worth nearly \$2,000.00 a ton. The Jardine Gold

Mining Company will have its forty-stamp gold mill in operation in the early fall. The operations at this camp are facilitated by an ample supply of hydro-electric power.

Other promising mining districts of the county are Mill Creek, Crevice, Horse Shoe and Independence.

At Contact several properties containing manganese, nickel, sheelite, molybdenum and bismuth are being opened up. All of the mineral areas of the county have an ample supply of water and timber.

Jardine Gold Mining Co.....	Jardine
Palmer Creek Mines.....	Jardine
Crevice Mine	Jardine
Western Mining & Smelting Co.....	Cooke City
And many other very promising prospects.	

Phillips County.

Phillips county is also one of the gold producing counties and it contains some very large porphyry dikes carrying gold values, which affords cheap mining. Most of the ore can be gloryholed to chutes. All the properties in this district are worked by cyanide mills.

Ruby Gulch Mining Co.....	Zortman
August Mining Co.....	Landusky

Silver Bow County.

Mines operated by the different companies and the officials of the different companies:

Anaconda Copper Mining Company, John Gillie, Manager; W. B. Daly, Assistant Manager; Chauncie Berrian, General Superintendent of Mines; John P. O'Neill, Assistant Superintendent; James Carrigan, Assistant Superintendent Zinc Mines; John Norris, Assistant Superintendent.

Mines	Number of Men		Total
	Surface	Underground	
Anaconda	34	103	136
Never Sweat	39	109	148
St. Lawrence	28	107	135
Mountain Con.	38	33	71
Bell	99	497	596
High Ore	94	87	181
Belmont	17	14	31
Original	55	34	89
Stewart	44	396	440
Moonlight	15	25	40
Poulin	27	273	300
Tramway	85	381	466
Silver Bow	10	4	14
Berkeley	42	313	355
West Gray Rock.....	10	10	20
Mountain View	23	13	36
Pennsylvania	32	12	44
Leonard	141	24	165
West Colusa	85	415	500
East Colusa	20	140	160
Badger State	91	707	798
Tropic	13	70	83
Nettie	31	91	122
Emma	22	125	147
Alice	25	68	93
Lexington	4	.....	4
Orphan Girl	12	28	40
Liquidator .....	.....	.....	.....
Shaft	9	12	21
Reins Shaft	7	98	105
Leonard Machine Shop.....	222	.....	222
Butte Mines Machine Shop	149	.....	149
Precipitating Plants	117	.....	117
Total	1,640	4,189	5,829

The foregoing is of June 30, 1919, and represents less than 50 per cent of the normal force. Possibly by the time this report reaches the public the above crews of men will all be doubled.

Butte Bullwhacker Mining Co., Alfred Frank, Manager.
Mine

	Number of Men	
	Surface	Underground
Butte Bullwhacker Mine.....	30	20

New England Mining Co., John McNulty, Manager.

New England Mine.....	6	3
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East Butte Copper Mining Co., Oscar Rohn, Gen. Mgr.
 Pittsmont Mine and Mill..... 217 133

North Butte Mining Co., Norman Brauly, Manager; Lester Frank, Superintendent.

Speculator Mine 300 80
 Sarfield Mine 31 9

Butte Superior Mining Co., J. L. Bruce, Manager; Angus McCloud, Superintendent.

Black Rock Mine..... 586 352

Davis-Daly Copper Mining Co., W. L. Creden, Manager; Dan McGraw, Superintendent.

Davis-Daly Mine 180 55
 Hiberian Mine 54 15

Clark Realty Co., W. A. Clark, Jr., Manager.

Elm Orlu 388 73

Tuolumne Mining Co., Paul Gow, Manager.

Butte Main Range Mine..... 70 30

Great Butte Copper Mining Co., F. W. Bacorn, Manager.

Great Butte Copper Mine..... 12 6

Moulton Mining Co., W. C. Siderfin, Manager.

Moulton Mine 22 8
 Ancient Mine 25 4
 Travomia Mine 25 4

Butte-Plutus Mining Co., D. J. McGrath, Manager.

Butte-Plutus Mine 6 3

Crystal Copper Mining Co., Wm. Gibson, Manager.

Goldsmith Mine 25 15

Anselmo Mining Co., R. G. Ralston, Manager.

Anselmo Mine 50 20

Ramsdell Copper Co., Pat Kenny, Manager.

Ramsdell Mine 17 5

As in the case of the Anaconda properties, the foregoing record is of June 30, 1919, with all properties on half force.

Number and Causes of Accidents.

Number and causes of fatal accidents from June 30th, 1918, to June 30th, 1919.

Falling in chutes and manways.....	5
Cable breaking	2
Fall of ground.....	18
Smothered in chute.....	2
Electrocuted	3
Freeing chute	2
Mine gas	1
Pulling cage in shieves.....	3
Caught in shaft.....	2
Premature blast	2
Crushed by mine car.....	2
Total	42

Mines In- spected 1919	Number of Men	Fatal Accidents
130	14,509	42

Percentage per 1,000 working, 2.96.

Recommendations Made in the Various Mines.

Timbering and filling.....	20
Signs to exit.....	20
Storage of powder and fuse.....	12
Platform and manways.....	10
Gates on cages.....	6
Guards around belts and saws.....	10
Grizzlies over chutes.....	15
Guard rails around chutes and shafts.....	20
Total	113

Accidents..

Have been notified of and have investigated 42 fatal accidents and many non-fatal accidents. Have had only three fatal accidents underground for the year 1919, outside the Butte district.

Respectfully submitted,

W. B. OREM,
State Mine Inspector.

MINE PRODUCTION OF GOLD, SILVER, COPPER, LEAD AND ZINC IN MONTANA IN 1918, BY COUNTIES.
(Advance Figures by C. N. Gerry, U. S. Geological Survey.)

COUNTY	No. of Producers	Ore Treated	Gold* Fine Ounces	Silver* Fine Ounces	Copper Pounds	Lead Pounds	Recover- able Zinc Pounds	Total Value \$
Beaverhead	36	4,583	599.90	94,438	190,981	1,050,111	.....	228,569
Broadwater	34	7,874	717.21	11,237	573,635	1,137,400	.....	177,513
Cascade	22	4,615	363.97	246,523	.....	1,100,085	.....	332,153
Deer Lodge	5	36,885	21,917.89	17,215	171,332	.....	.....	512,617
Fergus	11	37,470	10,179.36	5,725	402	5,333	.....	216,629
Gallatin	43	26,951	5,239.35	470,697	70,560	92,067	.....	597,923
Jefferson	57	54,861	6,116.92	537,777	345,545	3,881,482	2,463,673	1,829,354
Lewis and Clark	57	58,921	30,693.79	135,387	7,025	726,520	1,783,760	829,677
Liberty	3	65,412	731.86	156,906	44,658	6,820,971	11,114	481,544
Madison	70	9,451	19,015.44	12,846	54,304	437,565	.....	12,139
Mineral	5	137	.19	17	49,059	4,500	.....	139,568
Missoula	17	19,983	555.88	2,402	500,007	16,600	20,372	15,770
Phillips	8	177	70.05	9,021	16,650	43,168	.....	27,880
Plains	6	3,630	1,102.22	2,030	.....	.....	.....	209,766
Polk	2	97,800	8,358.38	36,983	.....	115,244	.....	31,460
Powell	33	1,018	659.50	8,145	6,072	2,874	.....	16,825
Ravalli	3	156	293.98	585	.....	25,796	15,451	16,787
Sanders	6	485	8.27	5,690	36,824	.....	.....	16,787
Silver Bow	75	7,394 038	43,638.80	15,013,855	321,107,456	22,746,456	204,963,778	115,496,193
Total 1918	493	7,823,967	150,192.96	16,797,479	323,174,850	37,135,875	209,258,148†	\$121,405,560
Total 1917	617	6,307,164	170,147.11	13,128,142	274,462,574	21,951,220	186,253,331	\$110,119,382

*Includes placer production.

†Average value of metals—Gold, \$20.6718 per ounce; silver, \$1.00 per ounce; copper, \$0.247 per pound; lead, \$0.071 per pound; zinc, \$0.091 per pound.

The above table, prepared by C. N. Gerry, is included in the report through the courtesy of Prof. V. C. Helges of the U. S. Geological Survey, Department of the Interior.
June 30th, 1919.

REPORT: COAL MINE INSPECTOR GEO. N. GRIFFIN.

Helena, Mont., July 1st, 1919.

Industrial Accident Board,
Hon. A. E. Spriggs, Chairman,
Helena, Montana.

Gentlemen:

I have the honor to present herewith my annual report as Coal Mine Inspector for the fiscal year ending June 30th, 1919.

I regret to have to report that the production of coal for the last year has fallen short of the production of the year previous. This was owing to two conditions, first, the signing of the armistice, which almost instantly brought about a decrease in the demand for coal; second, the unprecedented mild winter greatly curtailed the use of coal.

As a result of these conditions many of our coal mines have produced but a small amount of coal since the beginning of the year 1919, and some have shut down entirely, and there does not seem much chance for improvement until the fall trade starts in.

Labor Conditions.

I am glad to be able to report that there has been very little trouble between the coal operators and their employees during the past year. At a few of the mines a little trouble occurred, resulting in a loss of a few days' work, but as a whole the agreement between the two parties has been very closely observed, which goes to prove the value of collective bargaining.

Safety First.

It is, of course, generally understood that coal mining is a hazardous occupation, and no one knows this better than the men engaged in this line of endeavor. Yet it is too true in many cases that familiarity breeds contempt, for it is a hard matter to get some mine workers to exercise the care they should to safeguard themselves against the surrounding dangers.

In coal mining it is practically impossible to have continuous supervision, for mine officials can only be in one place at a time, and the working conditions at the face of

working places are so changeable as excavation progresses that necessarily the safety of the miner depends very largely on his own ability to take care of himself.

Consequently, we have urged all mine workers to observe the slogan "Safety First," and practice it continually, making it the first thing to be considered at all times and under all circumstances.

First Aid Work.

I am sorry to have to report that the interest in first aid work is not keeping proper place with our coal mine development in our State. In camps where active work along first aid lines formerly held first place, the work has been allowed to drag.

The principal cause for this condition can doubtless be found in the fact that during the war extraordinary efforts were made to increase the production of coal, everything else being relegated to the background. Now that peace has come to the world it is to be hoped that this line of work will be taken up again and pressed with vigor, for there can be no doubt but what many lives have been saved by first aid workers, and that the first aid spirit has been greatly developed among the workmen as a whole.

Accidents.

During the last year there were 17 fatal accidents in the coal mines of Montana as compared with 21 the year previous; these, together with non-fatal accidents, are fully covered in other sections of this report, hence the latter will not be further mentioned in this article.

While the number of fatal accidents for this year are not so high as last year, yet the number is altogether too great, and the question is, what can we do to lessen them?

Upon analyzing the fatal accidents for the last year one cannot help being impressed by the fact that nearly 90 per cent of them were of a preventable nature; that is to say, that had greater care been exercised by the victims the toll of death would doubtless have been much less. In a few cases the lack of intelligent supervision on the part of mine officials was a contributing cause, but in nearly all cases the individuals and companies operating our coal mines have

closely adhered to the law so far as furnishing a reasonably safe place to work in, and providing props, etc., with which to keep working places safe.

Ventilation.

Montana is fortunate in not having many coal mines in which fire damp is generated to any great extent, and our coal mining communities have been spared the horrors following explosions with the consequent loss of human lives.

We have, however, some mines in the State in which fire damp is generated, and it behooves those in charge of such properties to be constantly on the lookout to guard against an inflow of gas, for experience has proven that where small amounts of gas are met with occasionally there is a possibility of striking a large reservoir of it at times, and if a close watch is not kept a terrible tragedy may result. In such mines a large inflow of fresh air, coupled with constant watchfulness, is the only way to find safety.

In non-gaseous mines the element of ventilation is relatively not so important as it is in mines giving off fire damp, yet this does not mean that it should be in any manner neglected. Whether a mine generates fire damp or not, the most important thing in connection with it (next to having a good vein of coal) is good air and plenty of it.

Most of the coal companies operating in this State fully realize the importance of this subject, and are doing good work in seeing that the provisions of the law are carried out with reference to it.

While this is so, there are some individuals and companies who regard the ventilation of their mines as a side issue, and seem to be doing their best to get along with as little air as the law will allow, and as a result are continually having trouble with their workmen along this line.

Some companies urge as a defense that they cannot afford the expense necessary to properly ventilate their properties. The question might well be put to such individuals, can you afford to do otherwise?

In the autumn of 1918 some of the small operating companies complained to me that they were unable to get miners to work their mines.

Invariably an examination of such properties furnished a reason for such a condition; the mines did not have enough air in them to permit men to work, hence miners could not be secured.

In some of our mines the air entering them is quite ample, but the means of distributing it are altogether too inadequate; too many trap doors are in use and too few overcasts, and as a result a lot of air is wasted and does no good for the men working at the faces.

Where so many doors are in use, double doors should be built far enough apart to permit a train of cars between them, so that when one door is open the other can be shut, thus conserving a lot of air which could be carried to the faces.

I am desirous of calling the attention of mine officials at this time to the great benefit of having all overcasts built of some incombustible material. The law provides that all main overcasts be so constructed, and some companies are to be commended for constructing all overcasts of reinforced concrete, whether on the main roads or not, believing as I do that in the end such construction is the most economical and much safer and more efficient.

Poor stoppings are altogether too much in evidence in some of our mines. Practice has proven that in the average mine where a stopping is expected to serve a period of four years or more that it pays to build it of some incombustible material except in mines where squeezes are prevalent, in which cases log stoppings should be substituted. Stoppings built of loose dirt carelessly thrown in a cross cut cannot be expected to hold air, nor can those built of powder kegs or loose canvas. Even stoppings built out of good lumber are not efficient for any length of time, and should not be used except in short entries, or where only temporary work is being done.

Wash Houses.

During the past year several complaints have reached this office to the effect that some mining companies have not observed the law concerning wash houses. These cases were investigated, and in all cases the offending parties agreed to remedy the conditions complained of when the matters were called to their attention by this department.

The Compensation Law.

Since the compensation law went into effect one notices the absence of that hard feeling which was so often engendered between employees and employers by reason of the numerous law suits in personal injury cases. There seems to be a difference of opinion as to certain sections of the law as to the need of amendments, yet as a whole it seems to be giving good satisfaction in the various mining communities, and the Industrial Accident Board is to be commended for the able and impartial manner in which the law is being administered.

Examination for Certain Positions in Coal Mines.

Some complaints have reached this office that men have been holding positions as mine foremen and fire bosses for nearly two years on permits without having been examined. The reason for this condition is as follows: In several counties of the State two or three persons have expressed a desire to stand an examination for the above positions, but the law provides that when five requests are made for examination for the above positions, an examination shall be held, but in the absence of five requests the writer is of the opinion that examinations cannot be held in the various counties until five requests are received for the same.

In this connection I would recommend that the law be so changed so as to permit a consolidation of the various counties to form a district for examination purposes, or what might be still better would be a State examination held annually, or semi-annually, at Helena on a fixed date or dates, so that all aspirants for official positions in the coal mines of the State could be examined without having to wait so long.

Production.

The following were the number of miners employed, and the number of tons of coal produced by years, according to the figures compiled by the several Coal Mine Inspectors since the creation of the department in 1901:

Years	Tons Production	Men Employed	Value
1901	1,442,569	2,158	.....
1902	1,502,115	1,938	.....
1903	1,514,538	2,418	.....
1904	1,471,594	1,813	.....
1905	1,743,771	2,289	.....
1906	1,502,200	2,309	.....
1907	2,030,564	3,229	.....
1908	1,978,347	3,642	.....
1909	2,541,679	3,864	.....
1910	2,970,246	4,117	.....
1911	2,913,406	3,776	.....
1912	3,142,799	3,598	.....
1913	3,365,712	3,768	\$5,611,079
1914	2,938,671	3,660	4,714,023
1915	2,697,054	3,399	4,285,146
1916	3,688,307	3,834	5,899,353
1917, (8 months)	2,903,926	3,987	5,180,801
1918	4,514,414	4,746	9,525,386
1919	4,381,840	4,434	9,717,806

TOTAL AMOUNT MACHINE AND HAND MINED COAL BY MINES. TO-
GETHER WITH VALUE OF SAME, FOR YEAR
ENDING JUNE 30TH, 1919.

COUNTY	Machine Mined Coal	Hand Mined Coal	Total Tons	Value
BLAINE—				
Guertzen Mine .....	*	.....	.....	.....
Milk River Coal Co.	9,465	.....	9,465	.....
C. J. Carrice .....	*	.....	.....	.....
CARBON—				
A. C. M. Co.	162,171	.....	162,171	\$417,325.97
Inter. Coal Co.	44,025	.....	44,025	126,015.61
Bridger Coal Co.	6,477	.....	6,477	19,431.00
Fromberg Coal Co.	9,467	.....	9,467	30,964.19
M. C. & I. Co.	248,566	28,640	277,206	737,616.77
S. & S. Coal Co.	8,300	30,690	38,990	115,821.14
Bear Creek Coal Co.	101,723	22,196	123,920	372,000.00
Eagle Coal Co.	4,713	.....	4,713	14,517.22
N. W. I. Co.	9,687	923,022	923,709	2,043,901.56
CASCADE—				
Geo. W. Merkle Coal Co. ....	.....	79,425	79,425	194,330.25
Calone & Johnson	3,264	.....	3,264	6,743.00
Millard Mine	5,649	.....	5,649	14,297.00
James Brodie	4,507	.....	4,507	11,267.50
Orr Brothers .....	*	.....	.....	.....
Klimas & Romak .....	.....	1,727	1,727	855.37
Deering Coal Co. ....	*	.....	.....	.....
O'Neill & Carr .....	.....	17,466	17,466	32,464.20
Carbon Coal Co.	98,436	.....	98,436	270,698.45
Brown Coal Co.	66,936	33,468	100,414	230,956.80
A. C. M. Coal Co.	133,871	93,940	227,737	499,284.28
Nelson Coal Co.	56,899	88,060	144,958	373,219.89
National Coal Co.	36,751	.....	36,751	88,863.95
Curran Coal Co.	7,128	.....	7,128	17,107.20
Stainsby & Latham .....	.....	7,462	7,462	17,808.80
Pearce Coal Co.	1,000	25,111	26,111	63,396.41
Cottonwood Coal Co.	50,538	150,810	201,349	483,237.60
CHOUTEAU—				
Mackton Coal Co. ....	.....	12,076	12,076	36,228.00
Blue Pony Coal Co. ....	.....	2,426	2,426	9,704.00
C. C. Mack .....	.....	2,326	2,326	9,304.00
CUSTER—				
Kircher Mine .....	.....	3,460	3,460	12,110.00
CARTER—				
Jackson Mine .....	.....	155	155	387.50
Park Mine .....	.....	962	962	2,405.00
Beach Mine .....	.....	646	646	1,933.00
Tartar Mine .....	.....	450	450	1,350.00
Stabio Mine .....	.....	650	650	1,950.00
Trepanser Mine .....	.....	540	540	1,620.00
DAWSON—				
J. W. Boyle .....	.....	400	400	1,200.00
B. Daubly .....	.....	250	250	750.00
B. Struberud .....	.....	130	130	390.00
Albert Base .....	.....	55	55	320.00
Louis Bryant .....	.....	120	120	360.00
Barney Schultz .....	.....	.....	.....	.....
C. C. Ciapp .....	.....	1,200	1,200	3,000.00
FALLON—				
Ed. O. Donnell .....	.....	400	400	800.00
FERGUS—				
M. Z. Tuss Coal Co. ....	*	.....	.....	.....
Spring Creek Coal Co. ....	*	.....	.....	.....
Weingart Brothers .....	.....	3,316	3,316	13,264.00
Brew Coal Co. ....	.....	1,468	1,468	5,872.00
William Sharp .....	.....	511	511	1,524.00
Joe Plovnak .....	.....	1,200	1,200	4,800.00
Brown Coal Co. ....	.....	3,486	3,486	13,461.00
Sam Schultz .....	.....	1,184	1,184	4,736.00
Cottonwood Coal Co.	292,189	.....	292,189	701,253.60
Black Diamond Mine .....	.....	2,464	2,464	7,392.00
Jackman Coal Co. ....	.....	7,200	7,200	21,600.00

TOTAL AMOUNT MACHINE AND HAND MINED COAL BY MINES, TO-
GETHER WITH VALUE OF SAME, FOR YEAR
ENDING JUNE 30TH, 1919—(Continued.)

COUNTY	Machine Mined Coal	Hand Mined Coal	Total Tons	Value
HILL—				
H. Earl Clack Co.	1,200	1,200	4,200.00
A. G. Staton *	730	730	2,555.00
Fitch & Fritz *	5,000	5,000	17,500.00
Ayars & Jackson *	5,645	5,645	19,757.00
Irwin Hickey *
J. R. Alcott *	2,245	2,245	7,907.00
Heeter & Hayet *	1,778	1,778	5,615.00
Brown Coal Co. *	645	645	2,257.00
Joe Gussenhoven *	2,000	2,000	6,000.00
Louis Hary *	1,100	1,100	3,575.00
Jas. A. Kinney †
Hubbard Mine †
MUSSELSHELL—				
Republic Coal Co.	385,143	219,025	604,168	1,450,003.20
Roundup Coal Mining Co.	267,986	149,431	417,417	854,834.00
Ind. Coal Mining Co.	7,639	.....	7,639	30,174.05
Star Coal Co. *	22,857	8,000	30,857	76,206.75
Painted Robe Coal Co.	1,467	1,467	6,170.75
MISSOULA—				
Hell Gate Coal Co. *
PARK—				
Anderson & Evans *
Maxey Brothers †
Pine Creek Mine *	98	98	380.00
PHILLIPS—				
Ruby Gulch Coal Co.	12,640	12,640	28,440.00
PRAIRIE—				
George Akers *	205	205	410.00
Kempton Mine *	95	95	285.00
PONDERA—				
Kingston Mine *	2,400	2,400	12,000.00
ROOSEVELT—				
Stuller & Triplett *	1,600	1,600	4,800.00
Eddie Vale †
Axell Welhausen *	6,000	6,000	18,000.00
Mrs. L. E. Putman *
George Baker *
Jim Goodson *
A. W. Wells *	600	600	1,500.00
Jack Butterfield †
RICHLAND—				
Jennison Coal Co.	18,931	18,931	47,661.00
John W. Hill *
C. D. Monowick *	1,095	1,095	2,637.50
SHERIDAN—				
Richardson Bros. *	2,460	2,460	7,380.00
Frank J. French *	400	400	1,000.00
Guy Allen *	1,246	1,246	3,738.00
William Morgan †
L. J. Onstad †
Peter Bevier *	2,232	2,232	5,558.00
Wheeler & Pearce *	6,838	6,838	13,676.00
Steinmark Mine *
Ranous Coal Co. *	4,666	4,666	13,998.00
Redstone Coal Co. *	3,645	3,645	10,935.00
STILLWATER—				
J. S. Riddle †
J. D. Loffer †
Andrew Johnson *	745	745	2,285.00
TOOLE—				
West Butte Coal Co.	981	981	7,848.00
WIBAUX—				
McCloskey Mine *	1,200	1,200	3,000.00
Evalt Mine *	240	240	720.00
Con Mahoney *	200	200	600.00
Elford & Olsen *	265	265	795.00
B. F. Toombs *	400	400	1,200.00
Henley Brothers *	420	420	1,260.00

*Not operating.

†No report.

TOTAL AMOUNT OF MACHINE AND HAND MINED COAL AND VALUE OF SAME BY COUNTIES FOR THE YEAR ENDING JUNE 30TH, 1919.

	Machine Mined Coal	Hand Mined Coal	Total Tons	Values by Counties
Blaine		9,465	9,465	\$ 32,648.00
Carbon	595,129	1,004,548	1,559,677	3,877,593.46
Cascade	646,979	497,469	1,144,448	2,304,530.70
Chouteau		16,828	16,828	55,236.00
Custer		3,460	3,460	12,110.00
Carter		3,403	3,403	9,650.00
Dawson		2,155	2,155	6,020.00
Fallon		400	400	800.00
Fergus	292,189	20,829	313,018	753,902.60
Hill		20,343	20,343	59,866.00
Musselshell	752,461	446,759	1,199,220	2,417,388.75
Missoula	†			
Park		98	98	380.00
Phillips		12,640	12,640	28,440.00
Prairie		300	300	695.00
Pondera		2,400	2,400	12,400.00
Roosevelt		8,200	8,200	24,300.00
Richland		20,026	20,026	50,298.00
Sheridan		21,487	21,487	56,285.00
Stillwater		745	745	2,335.00
Toole		981	981	7,848.00
Wibaux		2,725	2,725	7,575.00
Total	2,286,758	2,095,082	4,381,840	\$9,719,301.51

†No report.

PRODUCTION OF VARIOUS PROPERTIES, DAYS OPERATED, AND CLASSIFIED LIST OF MEN EMPLOYED FOR THE YEAR
ENDING JUNE 30TH. 1919.

COUNTY. NAME OF MINE AND LOCATION.	Days Operated	Machine Men and Helpers	Loaders Employed	Miners Employed	Inside Daymen Employed	Outside Daymen Employed	Total Produc- tion in Tons	Value
Blaine—Milk River Coal Co., Chinook.....	240			15	1	1	9,465	\$32,648.00
Carbon—N. W. L. Co., Red Lodge.....	24	4	8	456	180	166	932,709	2,043,905
Carbon—A. C. M. Co., Washoe.....	246			100	46	24	417,325.97	162,171
Carbon—Inter Coal Co., Bear Creek.....	225	10	30		21	9	44,025	126,015.61
Carbon—Bridger Coal Co., Bridger.....	248	2	4		6		19,431.00	6,447
Carbon—Fromberg Coal Co., Fromberg.....	14	12	12		5		9,467	30,964.19
Carbon—M. C. I. Co., Washoe.....	228	26	180	5	166	22	277,206	737,616.70
Carbon—S. & S. Coal Co., Washoe.....	233	6	30	10	13	13	38,990	115,821.00
Carbon—Bear Creek Coal Co., Bear Creek.....	210	16		70	67	32	123,920	372,000.00
Carbon—Eagle Coal Co., Bear Creek.....	97			10	6	8	4,713	14,517.22
Cascade—G. W. Merkle Coal Co., Belt.....	129			90	37	15	79,424	194,330.25
Cascade—Calone & Johnson, Belt.....	246			2	1		3,264	6,743.00
Cascade—Millard Mine, Belt.....	221			1			5,649	14,297.00
Cascade—James Brodie & Son, Belt.....	192	12	4		1	2	4,507	10,816.80
Cascade—Klimas & Romak, Belt.....	48			1			1,727	855.37
Cascade—O'Neill & Carr, Belt.....	320			9	2	2	17,466	32,464.00
Cascade—Carbon Coal Co., Sand Coulee.....	259	16	35		15	15	98,436	270,698.45
Cascade—Brown Coal Co., Sand Coulee.....	251	4	32	24	30	1	100,404	230,556.80
Cascade—A. C. M. Coal Co., Sand Coulee.....	239	8	47	113	41	33	227,398	499,284.28
Cascade—Nelson Coal Co., Sand Coulee.....	212	4	15	73	36	25	144,952	373,219.89
Cascade—Curran Coal Co., Sand Coulee.....	232	6	11		20	6	36,751	90,639.95
Cascade—Pearce Coal Co., Sand Coulee.....	242				8	1	7,128	17,107.20
Cascade—Stainsby & Latham, Stockett.....	245	3	4	20	2	4	26,117	63,396.41
Cascade—Cottonwood Coal Co., Stockett.....	212			5	1	1	7,462	17,107.80
Chouteau—Mackton Coal Co., Big Sandy.....	223	10	18	83	47	38	201,349	483,237.60
Chouteau—Blue Pony Mine, Box Elder.....	240			12	12		12,076	48,304.00
Chouteau—C. C. Mack Mine, Big Sandy.....	235			4			2,326	9,304.00
Custer—Bircher Mine, Miles City.....	146			2	4	1	3,460	12,110.00
Carter—Jackson Mine, Ekalaka.....	138			2	2	1	3,155	12,387.00
Carter—Park Mine, Ekalaka.....	130			3	3		962	2,405.00
Carter—Beach Mine, Ekalaka.....	143			2	2		646	1,938.00
Carter—Tartar Mine, Camp Crook.....	178			1	1		450	1,350.00
Carter—Stabio Mine, Bayes.....	122			2	2		650	1,950.00
Carter—Trepanser Mine, Ekalaka.....	137			1	1		540	1,620.00
Dawson—J. W. Boyle, Circle.....	116			1	1		400	1,200.00
Dawson—B. Daubly, Circle.....	136			1	1		250	1,750.00

PRODUCTION OF VARIOUS PROPERTIES, DAYS OPERATED, AND CLASSIFIED LIST OF MEN EMPLOYED FOR THE YEAR
ENDING JUNE 30TH, 1919—(Continued.)

COUNTY, NAME OF MINE AND LOCATION.	Days Operated	Machine Men and Helpers	Loaders Employed	Miners Employed	Inside Daymen Employed	Outside Daymen Employed	Total Produc- tion in Tons	Value
Dawson—B. Struberud, Circle	145			1			130	390.00
Dawson—Barney Schultz, Circle	46			1			55	320.00
Dawson—Albert Base, Brockway							60	180.35
Dawson—Louis Bryant, Weldon	138			1			48	144.00
Dawson—C. C. Clapp, Glendive	200			2			1,200	3,000.00
Fallon—Ed. O. Donnell, Baker	200			1			400	800.00
Ferguson—Tuzz Coal Co., Lewistown	*							
Ferguson—Weingart Bros., Lewistown	240			7			3,316	13,264.00
Ferguson—Brew Coal Co., Lewistown	125			4			1,468	5,572.00
Ferguson—William Sharp, Lewistown	66			2			1,511	1,524.00
Ferguson—Joe Plovnik, Lewistown	113			1			1,200	4,800.00
Ferguson—Brown Coal Co., Lehigh	232			4			3,486	13,761.00
Ferguson—Sam Schultz, Lehigh	284			1			1,184	4,736.00
Ferguson—Cottonwood Coal Co., Lehigh	223			132	83		292,189	701,253.60
Ferguson—Black Diamond, Lewistown	135			2			2,468	7,392.00
Ferguson—Jackman Coal Co., Lewistown	186			3			7,200	21,600.00
Hill—H. Earl Clack Co., Havre	114			4			1,200	4,200.00
Hill—A. G. Staton, Havre	150			2	1		1,760	2,555.00
Hill—Fitch & Fritz, Havre	161			2			5,000	17,500.00
Hill—Ayars & Jackson, Havre	221			4			5,645	19,757.00
Hill—Irwin Hickey, Havre	*							
Hill—J. R. Alcott, Havre	232			5			3,832	12,454.00
Hill—Heeter & Hvet, Havre	201			6	1		1,778	5,615.00
Hill—Brown Coal Co., Havre	243			4	2		3,486	13,661.00
Hill—Joe Gussenhoven, Havre	182			3			2,000	6,000.00
Hill—Louis Hary, Havre	136			2	1		1,100	3,575.00
Hill—Jas. A. Kinney, Havre	†							
Hill—Hubbard Mine, Havre	242			100	170		604,168	1,450,002.20
Musselshell—Republic Coal Co., Roundup	203	14	173	80	113	58	417,417	854,828.27
Musselshell—Roundup Coal Co., Roundup	296	20	210	113	114	114	37,639	76,206.75
Musselshell—Ide C. M. Co., Roundup	200			6	31	10	30,837	6,170.75
Musselshell—Star Coal Co., Belmont	128	2		4	1	2	1,467	
Musselshell—Painted Robe Coal Co., Belmont	*							
Missoula—Hell Gate C. Co., Missoula	*							
Park—Anderson & Evans, Hoffman	*							
Park—Maxey Bros., Chimney Rock	†							
Park—Pine Creek Mine, Pray	90			1			38	380.00

PRODUCTION OF VARIOUS PROPERTIES, DAYS OPERATED, AND CLASSIFIED LIST OF MEN EMPLOYED FOR THE YEAR
ENDING JUNE 30TH, 1919.—(Continued.)

COUNTY, NAME OF MINE AND LOCATION	Days Operated	Machine Men and Helpers	Loaders Employed	Miners Employed	Inside Daymen Employed	Outside Daymen Employed	Total Produc- tion in Tons	Value
Phillips—Ruby Gulch C. Co., Zortman	148			12			12,640	28,440.00
Prairie—George Akers, Terry	115				2		205	410.00
Prairie—Kingson Mine, Terry	124			1			95	285.00
Pondera—Kingson Mine, Valley	225			2		1	2,400	12,000.00
Roosevelt—Eddle Vale, Culbertson	194			2			1,600	4,800.00
Roosevelt—Axell Welhausen, Culbertson				4			6,000	18,000.00
Roosevelt—Mrs. L. E. Fubman, Culbertson	*							
Roosevelt—George Walker, Culbertson	*							
Roosevelt—A. W. Wells, Culbertson								
Roosevelt—Jack Butterfield, Sioux Pass					2		600	1,500.00
Richland—Jennison Cornfield, Sioux Pass	198			15	10	3	18,931	47,661.90
Richland—John W. Hill, Fairfield								
Richland—D. Monroek, Fairfield	200			2	1	3	1,119	1,797.50
Sheridan—Richardson Bros., Antelope	290			4			2,460	7,380.00
Sheridan—Frank J. French, Medicine Lake	275			4		1	1,400	4,200.00
Sheridan—Guthrie, Medicine Lake	123			2			1,246	3,738.00
Sheridan—William Morgan, Westby	†							
Sheridan—J. J. Mustad, Plentywood	†			4	2		2,232	5,580.00
Sheridan—Peter Beaver, Coalgate	311			3			6,838	13,676.00
Sheridan—Wheeler & Pearce, Plentywood								
Sheridan—Steinmark Mine, Plentywood	148			4		1	4,665	13,998.00
Sheridan—Ranous Coal Co., Daleview	162			4		1	3,645	10,935.00
Sheridan—Redstone Mine, Redstone	†							
Stillwater—J. S. Riddle, Nye	†							
Stillwater—J. S. Loffer, Nye	138			2			745	2,235.00
Toole—West Butte C. Co., West Butte	186			4		1	981	2,848.00
Wibaux—McCloskey Mine, Wibaux	78			3			1,200	3,600.00
Wibaux—Evatt Mine, Wibaux	98			1			240	720.00
Wibaux—Con Mahoney, Wibaux	178			1			200	600.00
Wibaux—Ellford & Olsen, Wibaux	130			1			265	795.00
Wibaux—E. F. Tooms, Wibaux	119			1			400	1,200.00
Wibaux—Henley Brothers, Wibaux	98			1			420	1,260.00

*Not operating.

†No report.

DAYS OPERATED, VARIOUS CLASSES OF MEN EMPLOYED, POUNDS OF POWDER USED (DYNAMITE), KEGS OF BLACK POWDER, TONS OF COAL SOLD LOCALLY, LOADED ON LOCOMOTIVES, USED AT MINES OR WASTED, ALONG WITH WHAT AMOUNT OF COAL SHIPPED, BY COUNTIES, FOR THE YEAR ENDING JUNE 30TH, 1919.

COUNTY	Properties Reported	Average No. of Days Operating	Pick Miners Employed	Machine Men and Helpers Employed	Loaders Employed	Inside Men Employed	Outside Daymen Employed	Total No. of Men Employed	Kegs of Powder Used	Pounds of Dynamite Used	Tons of Coal Sold Locally	Tons of Coal Used at Mine	Tons of Coal Loaded on Locomotives	Tons of Coal Shipped
Blaine	1	240	15	66	264	1	1	1	379	3,600	9,465	142,150	14,830	1,402,872
Carbon	9	208	666	57	156	510	279	1,735	3,891	36,400	39,726	142,150	21,505	1,088,068
Cascade	9	219	429	57	156	236	143	1,021	2,486	36,400	8,703	26,172		
Custer	11	146	2				1	3	140		3,460			
Carter	6	137	11					11	113		3,403			
Chouteau	3	287	16					28	561		16,828			
Dawson	6	119	6			12	3	11	71		2,155			
Fallon	6	200	1			2		1	20		400			
Fergus	1	178	156	12		83	7	328	5,600	11,900	22,831	92,320	2,891	313,018
Hill	8	160	33			5	7	45	1,204		20,343		0	992,438
Musselshell	5	214	141	36	383	328	187	1,075	17,531		17,110	52,000		
Park	1	90	1				2	14	421		90			
Phillips	1	148	12				1	4			12,640			
Pondera	1	227	3				1	1			2,400			
Prairie	2	225	3					1	10		300			
Roosevelt	3	165	7					9	273		8,200			
Richland	2	199	17			11	6	34	2,108	1,510	20,026			
Sheridan	7	188	17			9	2	28	1,109		21,487	9,936	0	10,114
Stillwater	1	138	4			1		5	25		745			
Toole	1	186	4			1		5	32		981			
Wibaux	6	100	8					8	90		2,725			
Total mines reporting	93		1,550	171	808	1,201	709	4,434	71,106	53,600	214,126	322,578	39,226	3,805,910

Tons of coal shipped..... 3,805,910
 Tons of coal sold locally..... 3,214,126
 Tons of coal used or wasted at mine..... 322,578
 Tons of coal loaded on locomotives..... 39,226

Total production, tons..... 4,381,840

Summary.

Total number of various classes of men employed in and around the coal mines of Montana, together with production, value of coal, kegs of powder used, and per cent of fatal accidents per one thousand men employed for the year ending June 30th, 1919:

Number of mines reporting.....	93
Machine operators employed.....	171
Loaders employed	808
Miners employed	1,550
Inside day men employed.....	1,201
Outside day men employed.....	709
Total number of men employed.....	4,434
Total tonnage of coal.....	4,381,840
Tons produced per life lost.....	234,422
No. of men employed per fatal accident.....	261
No. killed per thousand men employed.....	3 4/5%
No. of kegs of powder used.....	71,106
Tons of coal mined by machines.....	2,286,758
Tons of coal mined by hand.....	2,095,082
Per cent of coal mined by machines.....	52%
Per cent of coal mined by hand.....	48%
Total value	\$9,719,301.51
Total number of lives lost.....	17

In conclusion I desire to thank the Chairman of the Industrial Accident Board, coal mine officials, and the officials of the Miners' Union, for the courtesies extended to me in my endeavors to carry on the work of this department.

Respectfully submitted,

GEO. N. GRIFFIN,
State Coal Mine Inspector.

Laws of Montana

ADMINISTERED BY

Industrial Accident Board

RELATING TO

Workmen's Compensation Act
Safety Inspection and Regulations
Alien and Illiterate Employes Act
Operation and Inspection Quartz Mines
Operation and Inspection Coal Mines
Operation and Inspection Stationary Boilers
Examining and Licensing Engineers

♦ ♦
♦ ♦ ♦

Compiled from Revised Codes of 1907
and Session Laws of 1909-1911
1913-1915-1917-1919

♦ ♦
♦ ♦ ♦

Compiled in the Offices of
Industrial Accident Board, Helena, Montana, July 1, 1919
A. E. Spriggs, Chairman
G. P. PORTER W. J. SWINDLEHURST

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STATE OF MONTANA

Chapter 96, Laws 1915

Workmen's Compensation Law

SYNOPSIS OF LAW

METHOD OF PROCEDURE.

Three plans are provided, under either one of which all employers except public corporations may come under Act.

PLANS DESCRIBED.

Plan Number One is self-insurance, whereby the employer, upon satisfying the Board as to his solvency may carry his own risk, paying compensation direct to his injured employees, in accordance with the schedule provided in the Act.

Plan Number Two provides that the employer shall insure his risk with some insurance company, authorized to do business in the State, and that the insurance company shall pay the compensation direct to the injured workman.

Plan Number Three is termed State Insurance, and provides that the employer shall pay a certain rate of premium on his payroll into the State Industrial Accident Fund, and that the injured employee shall be paid directly from this fund.

WHO ARE EMPLOYEES.

Employees and workmen are used synonymously and mean every person in the State, including a contractor other than "an independent contractor" who is engaged in the employment of an employer carrying on or conducting any of the industries classified as hazardous, whether same is by way of manual labor or otherwise and shall include every person in the service of another under any contract of hire, written or implied, except one whose employment is casual and not in the usual course of the trade, business, occupation, or profession of the employer.

ELECTIVE FEATURES OF ACT.

The Act is optional or elective as to employers and whatever plan they elect to abide by under the law is binding upon the employee unless he shall elect not to be bound by the act in any particular and serves notice to that effect upon his employer and the Board.

EMPLOYEE MAY RECONSIDER REJECTION.

Any employee who has rejected the Act may at any time reconsider or waive such rejection upon notification to his employer and the Board. The employee has no election in the matter of rejection until such time as his employer has elected to come under the Act.

NON-HAZARDOUS OCCUPATION MAY ELECT.

Any employer and his employees, engaged in non-hazardous work or employment, by their joint election, filed with and approved by the Board, may accept the provisions of Compensation Plan Number Three, and the rate of assessment shall be fixed at one-half of one per cent of the total payroll.

COMMON LAW DEFENSES.

Employers who do not elect to come under the Act shall not in any suit brought by an employee to recover damages for personal injury or death by accident, be permitted to defend any such suit at law upon the grounds that the employee was negligent, or that the injury was caused by the negligence of a fellow employee, or that the employee had assumed the risk attending the occupation which resulted in the injury.

WHAT INJURIES RECEIVE COMPENSATION.

Injuries, or death, arising out of or in the course of employment. When injury is due to the accident away from the plant, through the negligence or wrong of another, not in the same employ, recourse to the common law may be elected instead of compensation.

MEDICAL AND HOSPITAL ATTENDANCE.

Where employee does not belong to a hospital association the employer shall furnish medical and hospital service for the first two weeks, after the injury in an amount not to exceed \$50.00. Agreements may be made between the employer and employee and any acceptable physician or hospital association for the medical and hospital service covering both injury and sickness of an employee, said agreement providing for an assessment on the employees of not to exceed \$1.00 per month, unless the Board consents to a greater charge.

PERSONS ENTITLED TO COMPENSATION.

All persons working for wages in occupations inherently hazardous, or beneficiaries or major or minor dependents of persons so employed, including contractors other than independent contractors, except household and domestic servants, and agricultural laborers, or casual employees.

Beneficiary means a surviving wife or husband and a surviving child or children under the age of sixteen years and an invalid child or children over the age of sixteen years, or if no surviving wife or husband, then the surviving child or children under the age of sixteen years and any invalid child or children over the age of sixteen years, in whom shall vest a right to receive compensation under this Act.

Major dependent means if there be no beneficiaries as defined in this Act, the father and mother or the survivor of them, if actually dependent to any extent upon the decedent at the time of his injury.

Minor dependent means if there be no beneficiary as defined in this Act and if there be no major dependent as defined in this Act, the brothers and sisters, if actually dependent upon the deceased at the time of his injury.

COMPENSATION FOR DEATH.

Burial expenses in an amount not to exceed \$75.00 shall be paid where an injury causes death within six months from the date of the injury and 50% of the wages received at the time of the injury to his beneficiaries, if any, residing within the United States, at the date of the happening of the injury, or, if residing outside of the United States, 50% of such compensation, or, if none, then 40% of the wages received at the time of the injury to his major dependents, if any, if residing in the United States at the date of the happening of the injury, or if none, then 30% of the wages received at the time of the happening of the injury to his minor dependents, if any residing within the United States at the date of the happening of the injury subject to the maximum compensation of \$10.00 per week and a minimum compensation of \$6.00 per week for a period not exceeding 400 weeks.

COMPENSATION FOR DISABILITY.

The two weeks' medical and hospital service and medicines unless the employee is a contributor to a hospital contract; after the first two weeks after an injury producing temporary total disability 50% of the wages received at the time of the injury, subject to a maximum compensation of \$10.00 per week and a minimum compensation of \$6.00 per week, not exceeding 300 weeks.

If the injury produces total disability, permanent in character, 50% of the total wages received at the time of the injury, subject to a maximum of \$10.00 per week and a minimum of \$6.00 per week, not exceeding 400 weeks, after which payment shall continue during disability at the rate of \$5.00 per week. If the injury produces partial disability, one-half of the difference between the wages received at the time of the injury and the wages which such injured employee is able to earn thereafter, not exceeding, however, the difference between the wages which the injured employee is able to earn after the injury and the maximum compensation allowed in cases of total dis-

ability, provided, however, that the sum of \$6.00 per week shall be paid, not exceeding 150 weeks in case of permanent partial disability and 50 weeks in case of temporary partial disability.

Compensation for the loss of a limb or other member of the body, or any part thereof, ranges from three weeks for the loss of a fourth finger at the distal joint, or toe, other than the great toe, at the second or distal joint, to 200 weeks for the loss of the arm at or near the shoulder.

WHAT CONSTITUTES TOTAL DISABILITY.

The loss of both hands or both feet or both arms or both legs or both eyes or any two thereof shall constitute total disability, permanent in character. The paralysis of the hand, foot, arm or leg shall be considered as loss of such member.

AGREEMENT TO WAIVE, INVALID.

No agreement by an employee to waive any rights under this Act for an injury to be received shall be valid.

HOW PAID.

The payments of compensation as provided in this Act shall be made monthly except as otherwise provided herein.

The monthly payments may be converted, in whole or in part, into a lump sum payment, which lump sum payment shall not exceed the estimated value of the present worth of the deferred payments, capitalized at the rate of 5% per annum. Such conversion can only be made upon the written application of the injured workman, his beneficiary or major or minor dependents, as the case may be, and shall rest in the discretion of the Board, both as to the amount of the said lump sum payment and the advisability of such conversion.

NOT LIABLE FOR DEBTS.

No payments under this Act shall be assignable, subject to garnishment or attachment or be held liable in any way for any debts.

INDUSTRIES OR OCCUPATIONS COVERED BY THE ACT.

All occupations specified as hazardous, of which over 300 are named and defined in the Act, including construction or building work of all kinds and the operation of any plants where power driven machinery is used, the operation of electric lines, logging railways, or railroads, (except those engaged in interstate commerce), light and power plants, smelters and blast furnaces, mines of all kinds, grain elevators and miscellaneous industries such as the operation of stock yards, tanners and theatre stage and moving picture employees

and operators. Where public corporations are the employer or any contractor engaged in contract work for such public corporation, the terms, conditions and provisions of Compensation Plan No. Three are exclusive, compulsory and obligatory upon both employer and employee.

ACCIDENTS MUST BE REPORTED.

A full and complete report of every accident to an employee, arising out of and in the course of his employment and resulting in loss of life or injury to such person, must be made to the Board immediately by the employer.

CLAIMS MUST BE FILED, WHEN.

In case of personal injury or death, all claims shall be forever barred unless presented within six months from the date of the happening of the accident.

TEXT OF THE WORKMEN'S COMPENSATION LAW FOR THE STATE OF MONTANA

CHAPTER 96.

"An Act Providing for the Protection and Safety of Workmen in All Places of Employment and for the Inspection and Regulation of Places of Employment in All Inherently Hazardous Works and Occupations; Providing a Schedule of Compensation for Injury to or Death of Workmen and Methods of Paying the Same, and Prescribing the Liability of Employers Who do Not Elect to Pay Such Compensation; Establishing the Industrial Accident Board, Defining Its Powers and Duties; and Providing for a Review of Its Awards."

Be It Enacted by the Legislative Assembly of the State of Montana:

PART I.

GENERAL PROVISIONS.

Section 1 (a). This Act shall be known and may be cited as the Workmen's Compensation Act. Part I shall contain those sections which have a general application to the whole of the Act and may be referred to as the "General Provisions;" Part II shall contain those sections which refer to Compensation Plan Number One; Part III shall contain those sections which refer to Compensation Plan Number Two; Part IV shall contain those sections which refer to Compensation Plan Number Three; Part V shall contain those sections which may be referred to as the "Safety Provisions."

Section 1 (b). Whenever Compensation Plan Number One, Two or Three, or the safety provisions of this Act shall be referred to, such reference shall also be held to include all other sections which are applicable to the subject matter of such reference.

Section 1 (c). The "Compensation Provisions" of this Act, whenever referred to, shall be held to include the provisions of Compensation Plan Number One, Two or Three, and all other sections of this Act applicable to the same, or any part thereof.

Section 2 (a). There is hereby created a Board to consist of three members; the Commissioner of Labor and Industry shall be one member, the State Auditor shall be one member, and one member shall be appointed by the Governor, which Board shall be known as the Industrial Accident Board, and shall have the powers, duties, and functions hereinafter conferred. The term of office of the appointed member of the Board shall be for four years and until his successor shall have been appointed and qualified. He shall receive an annual

salary of Four Thousand Dollars, payable monthly, and shall be the Chairman of the Board. The Board shall elect one of their number as Treasurer of the Board.

Note—The amendment to the above section by the Legislature of 1919, approved March 4, 1919, substituted the words "Six Thousand Dollars" for the words "Four Thousand Dollars," otherwise section unchanged.

Section 2 (b). A vacancy in the office of the appointed member of the Board shall be filled in the same manner as the original appointment, but shall only be for the unexpired term of such vacancy. The appointed member shall not be removed except for cause, and after a hearing had before and a finding made by the remaining members of the Board, and both of the remaining members of the Board must concur in the removal of the appointed member.

Section 2 (c). Each member shall, upon entering upon the duties of his office, execute to the State of Montana and file with the Secretary of State a bond in the sum herein prescribed, executed by not less than four responsible sureties or by some surety company authorized to become sole surety on bonds in the State of Montana, such bonds to be approved by the Governor, and conditioned that he will faithfully and impartially discharge the duties of his office. Such bonds shall be in addition to any other bonds required by law to be furnished.

Section 2 (d). The bond of the Treasurer of the Board shall be in a sum to be fixed by the Governor, not less than Twenty-five Thousand Dollars (\$25,000.00), nor more than One Hundred Thousand Dollars (\$100,000.00). The bonds of the members of the Board other than the Treasurer shall be in the sum of Ten Thousand Dollars (\$10,000.00).

Section 2 (e). Neither the Commission of Labor and Industry, nor the State Auditor, shall receive any additional compensation for the duties imposed upon them by this Act.

Section 2 (f). A majority of the Board shall constitute a quorum for the transaction of any business. A vacancy on the Board shall not impair the right of the remaining members to perform all of the duties and exercise all the powers and authority of the Board. The act of the majority of the Board when in session as a Board shall be deemed to be the act of the Board, but any investigation, inquiry, or hearing which the Board has power to undertake or to hold, may be undertaken or held by, or before, any member thereof, or any examiner, or referee appointed by the Board for that purpose. Every finding, order, decision, or award made by any commissioner, examiner, or referee pursuant to such investigation, inquiry or hearing, when approved and confirmed by the Board and ordered filed in its office shall be deemed to be the finding, order, decision, or award of the Board.

Section 2 (g). The Board shall have a seal bearing the following inscription: "Industrial Accident Board, State of Montana, Seal."

The seal shall be affixed to all writs and authentications of copies of records, and to such other instruments as the Board shall direct. All courts shall take judicial notice of said seal.

Section 2 (h). The Board shall keep its principal office in the Capital of the State and shall be provided with suitable rooms, necessary office furniture, stationery, and other supplies. For the purpose of holding sessions in other places the Board shall have power to rent temporary quarters.

Section 2 (i). The Board shall appoint a secretary who shall hold office at the pleasure of the Board. It shall be the duty of the Secretary to keep a full and true record of all the proceedings of the Board; to issue all necessary processes, writs, warrants, and notices which the Board is required or authorized to issue, and generally to perform such other duties as the Board may prescribe.

Section 2 (j). The Board shall employ such assistants and other employees as it may deem necessary to carry out the provisions of this Act.

Section 2 (k). All officers and employees of the Board shall receive such compensation for their services as may be fixed by the Board, shall hold office at the pleasure of the Board, shall perform such duties as are imposed on them by law or by the Board.

Section 2 (l). The salaries of members of the Board, secretary and every other person holding office or employment under the Board, as fixed by law or by the Board, shall be paid monthly after being approved by the Board upon claims therefor to be audited and approved by the State Board of Examiners.

Section 2 (m). All expenses incurred by the Board pursuant to the provisions of this Act, including the actual and necessary traveling and other expenses and disbursements of the members thereof, its officers and employees incurred while on business of the Board, either within or without the State, shall, unless otherwise provided in this Act, be paid from the Industrial Administration Fund, after being approved by the Board upon claims therefor to be audited and approved by the State Board of Examiners.

Section 2 (n). The Board shall cause to be printed such blank forms as it shall deem requisite to facilitate or promote the efficient administration of this Act. It shall provide a book in which shall be entered the minutes of all its proceedings, a book of record in which shall be recorded all awards made by the Board, and such other books, or records as it shall deem requisite for the purpose and efficient administration of this Act. All such records are to be kept in the office of the Board.

Section 2 (o). The Board shall have the power and authority to publish and distribute at its discretion from time to time, in addition to its annual report, such further reports, and bulletins cover-

ing its operations proceedings, and matters relative to its work as it may deem advisable.

Section 2 (p). The Board shall have power and authority to charge and collect the following fees:

1. For copies of papers and records not required to be certified or otherwise authenticated by the Board, 15 cents for each folio; for certified copies of official documents and orders filed in its office, or of the evidence taken at any hearing, 20 cents for each folio.

2. To fix and collect reasonable charges for publications issued under its authority.

3. The fees charged and collected under this section shall be paid monthly into the treasury of the State to the credit of the Industrial Administration Fund, and shall be accompanied by a detailed statement thereof.

Section 2 (q). The Attorney General shall be the legal adviser of the Board and shall represent it in all proceedings whenever so requested by the Board or any member thereof.

Section 3 (a). In an action to recover damages for personal injuries sustained by an employee in the course of his employment, or for death resulting from personal injuries so sustained, it shall not be a defense; (1) That the employee was negligent, unless such negligence was wilfull; (2) That the injury was caused by the negligence of a fellow employee; (3) That the employee had assumed the risks inherent in, incident to, or arising out of his employment, or arising from the failure of the employer to provide and maintain a reasonably safe place to work, or reasonably safe tools, or appliances.

Section 3 (b). The provisions of Section 3 (a) shall not apply to actions to recover damages for personal injuries sustained by household or domestic servants, farm or other laborers engaged in agricultural pursuits, or persons whose employment is of a casual nature.

Section 3 (c). Any employer who elects to pay compensation as provided in this Act shall not be subject to the provisions of Section 3 (a), nor shall such employer be subject to any other liability whatsoever for the death of or personal injury to any employee except as in this Act provided; and, except as specifically provided in this Act, all causes of action, actions at law, suits in equity, and proceedings whatever, and all statutory and common law rights and remedies for, and on account of such death of, or personal injury to, any such employee are hereby abolished; provided, that Section 3 (a) shall not apply to actions brought by an employee who has elected not to come under this Act, or by his representatives, for damages for personal injuries, or death, against an employer who has elected to come under this Act.

Section 3 (d). Where both the employer and employee have elected to come under this Act, the provisions of this Act shall be exclusive, and such election shall be held to be a surrender by such employer and such employee of their right to any other method, form or kind of compensation, or determination thereof, or to any other compensation, or kind of determination thereof, or cause of action, action at law, suits in equity, or statutory or common law, right, or remedy, or proceeding whatever, for, or on account of, any personal injury to, or death of such employee, except as such rights may be hereinafter specifically granted; and such election shall bind the employee himself and in case of death shall bind his personal representative and all persons having any right or claim to compensation for his injury or death, as well as the employer, and those conducting his business during liquidation, bankruptcy, or insolvency.

Section 3 (e). Where a public corporation is the employer, or any contractor engaged in the performance of contract work for such public corporation, the terms, conditions and provisions of Compensation Plan Number Three shall be exclusive, compulsory, and obligatory upon both employer and employee. Any sums necessary to be paid under the provisions of this Act by any public corporation shall be considered to be ordinary and necessary expenses of such corporation, and the governing body of such public corporation shall make appropriation of and pay such sums into the accident or administration fund, as the case may be, at the time and in the manner provided for in this Act, notwithstanding that such governing body may have failed to anticipate such ordinary and necessary expense in any budget, estimate of expenses, appropriation, ordinance, or otherwise.

Note—The above Section 3 (e) was amended by the Legislature of 1919, receiving executive approval on March 4, 1919, to read as follows:

"Section 3 (e). Where a public corporation is the employer, or any contractor engaged in the performance of contract work for such public corporation, the terms, conditions and provisions of Compensation Plan Number Three shall be exclusive, compulsory and obligatory upon both employer and employee. Any sums necessary to be paid under the provisions of this Act by any public corporation shall be considered to be ordinary and necessary expenses of such corporation, and the governing body of such public corporation shall make appropriation of and pay such sums into the accident or administration fund, as the case may be, at the time and in the manner provided for in this Act, notwithstanding that such governing body may have failed to anticipate such ordinary and necessary expense in any budget, estimate of expenses, appropriation, ordinance, or otherwise. Whenever any contractor engaged in the performance of contract work for any public corporation is the employer, such public corporation upon final settlement with the contractor shall deduct for the benefit of the Industrial Accident Fund the amount of all premium assessments necessary to be paid by such contractor under the provisions of this Act."

Section 3 (f). Every employer engaged in the industries, works, occupations, or employments in this Act specified as "hazardous" may on or before the 1st day of July, 1915, if such employer be then engaged in such hazardous industry, work, occupation, or employment, or at any time thereafter, or, if such employer be not so en-

gaged on said date, may on or after thirty days before entering upon such hazardous work, occupation or employment, or at any time thereafter, elect whether he will be bound by either of the Compensation Plans mentioned in this Act. Such election shall be in the form prescribed by the Board, and shall state whether such employer shall be bound by Compensation Plan Number One or Compensation Plan Number Two, or Compensation Plan Number Three, and a notice of such election, with the nature thereof, shall be posted in a conspicuous place in the place of business of such employer, and a copy of such notice, together with an affidavit of such posting, shall be filed with the Board.

Section 3 (g). Every employee in the industries, works, occupations or employments in this Act specified as "hazardous" shall become subject to and be bound by the provisions of that plan of compensation which shall have been adopted by his employer, unless such employee shall elect not to be bound by any of the compensation provisions of this Act and until such employee shall have made such election. Such election shall be made by written notice in the form prescribed by the Board, served upon the employer, and a copy filed with the Board, together with the proof of such service.

Section 3 (h). If the employer shall fail to make the election herein provided for at the time, and in the manner herein prescribed, such employer shall be presumed to have elected not to be bound by the provisions of either Compensation Plan Number One, or Compensation Plan Number Two, or Compensation Plan Number Three for that fiscal year, unless such employer shall elect to become subject to, or bound by this Act in the manner provided for such election in the first instance. After having once elected to be bound by one or the other of the Compensation Plans provided in this Act, such employer shall be bound by such election for said first fiscal year and each succeeding fiscal year, unless such employer shall, not less than thirty or more than sixty days prior to the end of any fiscal year, elect not to be bound by either of such Compensation Plans, after the expiration of said fiscal year or unless he shall elect to be bound for the succeeding fiscal year by a different Compensation Plan than the one by which he is then governed. Such election must be made in the manner provided for in reference to the first election of such employer under this Act.

Section 3 (i). It is the intention of this Act that any employer engaged in hazardous occupations as defined herein shall, before being bound by either of the Compensation Plans herein provided, elect to be so bound thereby, and that the employee shall be presumed to have elected to be the subject to, and bound by the provisions of the particular plan which may have been adopted by his employer, unless such employee shall affirmatively elect not to be bound by this Act.

Section 3 (j). Any employee who has elected not to be bound by the provisions of this Act in the manner herein provided, may

revoke such election and elect to come thereunder at any time. Any employer who has failed to elect to be bound by either one or the other of the Compensation Plans herein mentioned, may, at any time during any fiscal year, elect to be bound thereby, which said election shall be made as hereinbefore provided; but whenever any employer or employee shall have elected to come under the provisions hereof, such election, when it shall have been made, shall bind such employer and employee for the rest of the then fiscal year.

Section 3 (k). No compensation shall be paid to any employee, whether such employee has elected to come under this Act or not, where his employer has failed to elect, and has failed to come under one or the other of the Compensation Plans herein provided.

Section 4 (a). This Act intended to apply to all inherently hazardous works and occupations within this State, and it is the intention to embrace all thereof in Section 4 (b), 4 (c), 4 (d), and 4 (e), and the works and occupations enumerated in said sections are hereby declared to be hazardous.

Note—Section 4 (a) was amended by the Legislature of 1919, receiving executive approval on March 4, 1919, to read as follows:

"Section 4 (a). This Act is intended to apply to all inherently hazardous works and occupations within this State, and it is the intention to embrace all thereof in Section 4 (b), 4 (c), 4 (d), and 4 (e), and the works and occupations enumerated in said sections are hereby declared to be hazardous, and any employer having any workmen engaged in any of the hazardous works or occupations herein listed shall be considered as an employer engaged in hazardous works and occupations as to all his employees."

Section 4 (b). CONSTRUCTION WORK: Tunnels, bridges, trestles, sub-aqueous works, ditches and canals (other than irrigation without blasting). dock excavations, fire escapes, sewers, house moving, house wrecking, iron or steel frame structures or parts of structures, electric lights, or power plants, or systems, telegraph or telephone systems; pile driving; steam railroads, steeples, towers or grain elevators, not metal framed; dry docks, without excavation; jetties, breakwaters, chimneys, marine railways, water works or water systems; electric railways, cable railways, street railways, with or without rock work or blasting; erecting fireproof doors or shutters; steam heating plants; blasting; tanks, water towers or wind mills, not metal framed; shaft sinking; concrete buildings; freight or passenger elevators; fire proofing of buildings; galvanized iron or tin work; gas works or systems; marble, stone or brick work; roadmaking, with or without blasting; roof work; safe moving; slate work; plumbing work, inside or outside; metal smokestacks or chimneys; excavations not otherwise specified; blast furnaces; street or other grading; advertising signs; ornamental work on buildings; ship or boat building or rigging, with or without scaffolding; carpenter work not otherwise specified; installation of steam boilers or engines; placing wires in conduits; installing dynamos; putting up belts for machinery; marble, mantel, stone or tile setting; metal ceiling work; mill or shipwrighting; painting of buildings or structures; installation of

automatic sprinklers; concrete laying in floors, foundations or street paving; asphalt laying; covering steam pipes or boilers; installation of machinery not otherwise specified; drilling wells, installing electrical apparatus or fire alarm apparatus in buildings; house heating or ventilating systems, glass setting; building hot houses; lathing, paper hanging, plastering, wooden stair building.

Section 4 (c). OPERATION (Including Repair Work) of logging, cable, electric, street, steam or other railroads; dredges; interurban electric railroads using third rail systems; electric light or power plants; quarries; telegraph systems; stone crushers; blast furnaces; smelters; coal mines, gas works; steamboats; tugs and ferries; mines other than coal; steam heating or power plants; grain elevators; laundries; water works, paper mills; pulp mills; garbage and fertilizer works.

Section 4 (d). FACTORIES USING POWER DRIVING MACHINERY: Stamping tin metal; bridge work; railroad, car or locomotive making or repairing; cooperage; logging, with or without machinery; sawmills, shingle mills, staves, veneer, box lath, packing cases, sash, doors, blinds, barrel, keg, pail, basket, tub, wooden ware or wooden fibre ware, rolling mills; making steam shovels or dredges; tanks, water towers; asphalt; building material not otherwise specified; fertilizers; cement, stone with or without machinery; kindling wood, masts or spars with or without machinery; canneries; metal stamping; creosoting works; excelsior; iron, steel, copper, zinc, brass, or lead articles or wares not otherwise specified; working in wood not otherwise specified; hardware, tile, brick, terra cotta fire clay, pottery, earthenware, porcelain ware; peat fuel; brickettes; breweries; bottling works; boiler works; foundries; machine shops not otherwise specified; cordage; working in food stuffs, including oils fruits and vegetables; working in wool, cloth, leather, paper, broom, brush, rubber or textiles not otherwise specified; making jewelry; making soap, tallow, lard, grease, condensed milk; creameries; printing, electrotyping, photoengraving, engraving and lithographing; sugar factories.

Section 4 (e). MISCELLANEOUS WORK: Operating stock yards, with or without railroad entry; packing houses; wharf operations; artificial ice and refrigerating or cold storage plants; tanneries; electric systems not otherwise specified; theatre stage employees, including moving picture machine operators; fire works manufacturing, powder works.

Section 5. If there be or arise any hazardous occupation or work other than hereinbefore enumerated, it shall become under this Act and its terms, "conditions and provisions as fully and completely as if hereinbefore enumerated.

Section 6. Unless the context otherwise required, words and phrases employed in this Act shall have the meaning hereinafter defined.

Section 6 (a). "Factories" meaning undertakings in which the business of working at commodities is carried on with power driven machinery, whether in manufacture, repair, or change, and shall include the premises, yards, and plant of the concern.

Section 6 (b). "Workshop" means any plant, yard, premises, room or place where power driven machinery is employed and manual labor is exercised by way of trade or gain or otherwise in or incidental to the process of making, altering, repairing, printing or ornamenting, finishing or adapting for sale, or otherwise, any article, or part of article machinery, or thing, over which premises, room or place the employer of the person working therein has the right of access or control.

Section 6 (c). "Mill" means any plant, premises, room, or place where machinery is used; any process of machinery, changing, altering, or repairing any article or commodity for sale, or otherwise, together with the yards and premises which are a part of the plant, including elevators, warehouses, and bunkers.

Section 6 (d). "Mine" means any mine where coal, clay, ore, mineral, gypsum, or rock is dug or mined underground.

Section 6 (e). "Quarry" means an open cut from which coal is mined, or clay, ore, mineral, gypsum, sand, shale, gravel, or rock is cut or taken for manufacturing, building, or construction purposes.

Section 6 (f). "Engineering work" means any work of construction, improvement, or alteration or repair of buildings, streets, highways, sewers, street railways, railroads, logging roads, interurban roads, harbors, docks, canals; electric, steam or water power plants; telegraph and telephone plants and line; electric light and power lines, and includes any other work for the construction, alteration, or repair of which machinery driven by mechanical power is used.

Section 6 (g). "Reasonably safe place to work" means that the place of employment has been made as free from danger to the life or safety of the employee as the nature of the employment will reasonably permit.

Section 6 (h). "Reasonably safe tools and appliances" are such tools and appliances as are adapted to, and are reasonably safe for use for the particular purpose for which they are furnished, and shall embrace all safety devices and safeguards provided or prescribed by the "safety provisions" of the Act for the purpose of mitigating or preventing a specific danger.

Section 6 (i). "Employer" means any person, firm, association, or corporation, and includes the state, counties, municipal corporations, cities under special charter and commission form of government, school districts, towns, or villages, and independent contractors, and shall include the legal representatives of a deceased employer.

Section 6 (j). "Employee" and "workman" are used synonymously, and mean every person in this state, including a contractor other than "an independent contractor," who, after July first, 1915, is engaged in the employment of an employer carrying on or conducting any of the industries classified in Section 4 (a), 4 (b), 4 (c), 4 (e) and 5 of this Act, whether by way of manual labor, or otherwise or whether upon the premises or at the plant of such employer, or who is engaged in the course of his employment away from the plant of his employer; provided, however,

1. If the injury to a workman occurring away from the plant of his employer is due to the negligence or wrong of another not in the same employ, the injured workman, or, if death results from such injury, beneficiaries or dependents, as the case may be, shall elect whether to take under this Act or seek a remedy against such others; such election shall be made in advance of the commencement of the action.

2. If he take under this Act, the cause of action against such other shall be assigned to the State for the benefit of the Industrial Accident Fund, or the employer or insurer, as the case may be.

3. Any such cause of action assigned to the State may be prosecuted, or compromised by the Board, in its discretion.

4. If such workman, his beneficiaries, or dependents, as the case may be, shall elect to proceed against the person responsible for the injury, such election shall constitute a waiver of any right to compensation under the provisions of this Act.

Section 6 (k). "Injury" means and shall include death resulting from injury.

Section 6 (l). "Beneficiary" means and shall include a surviving wife or husband and a surviving child or children under the age of sixteen years and an invalid child or invalid children over the age of sixteen years, or if no surviving wife or husband, then the surviving child or children under the age of sixteen years, and any invalid child or children over the age of sixteen years in whom shall vest a right to receive compensation under this Act.

Section 6 (m). "Major dependent" means if there be no beneficiaries as defined in Section 6 (l), the father and mother of the survivor of them, if actually dependent to any extent upon the decedent at the time of his injury.

Section 6 (n). "Minor dependent" means if there be no beneficiary as defined in Section 6 (l), and if there be no major dependent as defined in Section 6 (m), the brothers and sisters, if actually dependent upon the decedent at the time of his injury.

Section 6 (o). "Invalid" means one who is physically or mentally incapacitated.

Section 6 (p). "Child" shall include a posthumous child, a step-child, a child legally adopted prior to the injury, an illegitimate child legitimized prior to the injury.

Section 6 (q). "Injury" or "injured" refers only to an injury resulting from some fortuitous event, as distinguished from the contraction of disease.

Section 6 (r). Wherever the singular is used the plural shall be included, and wherever the plural is used the singular shall be included.

Section 6 (s). Wherever the masculine gender is used, the feminine and neuter shall be included.

Section 6 (t). The term "physician" shall include "surgeon" and in either case shall mean one authorized by law to practice his profession in this State.

Section 6 (u). "Week" means six working days, but includes Sunday.

Section 6 (v). "Wages" means the average daily wages received by the employee at the time of the injury for the usual hours of employment in a day, and overtime is not to be considered.

Section 6 (w). "Wife" or "widow" means only a wife or widow living with, or legally entitled to be supported by the deceased at the time of the injury.

Section 6 (x). "Husband" or "widower" means only a husband or widower incapable of supporting himself, and living with, or legally entitled to be supported by the deceased at the time of her injury.

Section 6 (y). "Board" means the Industrial Accident Board of the State of Montana.

Section 6 (z). "Commissioner" means one of the members of the Industrial Accident Board.

Section 6 (aa). "Appointed member of the Board" means that member of the Industrial Accident Board appointed by the Governor.

Section 6 (bb). "Order" shall mean and include any decision, rule, regulation, direction, requirement, or standard of the Board, or other determination arrived at or decision made by such Board, excepting general or local orders as herein specified.

Section 6 (cc). "General order" shall mean and include such order made under the safety provisions of this Act as applies generally throughout the State to all persons, employments or places of employment, or employees working in such places of employment classed as hazardous in this Act.

Section 6 (dd). "Local order" shall mean and include any ordinance, order, rule, or determination of any public corporation, or any

order or direction of any other public official, board, or department upon any matter over which the Industrial Accident Board has jurisdiction.

Section 6 (ee). "Pay-roll," "annual pay-roll," or "annual pay-roll for the preceding year," means the average annual pay-roll of the employer for the preceding calendar year, or, if the employer shall not have operated a sufficient, or any, length of time during such calendar year, twelve times the average monthly pay-roll for the current year, provided that an estimate may be made by the Board for any employer starting in business where no average pay-rolls are available, such estimate to be adjusted by additional payment by the employer or refund by the Board, as the case may actually be on December 31st of such current year.

Section 6 (ff). "Year" unless otherwise specified, means calendar year. "Fiscal year" means the period of time between the first day of July and the 30th day of the succeeding June.

Section 6 (gg). "Public corporation" means the State, or any county, municipal corporation, school district, city, city under commission form of government or special charter, town or village.

Section 6 (hh). "Insurer" means any insurance company authorized to transact business in this State insuring any employer under this Act.

Section 6 (ii). "Casual employment" means employment not in the usual course of trade, business, profession, or occupation of the employer.

Section 6 (jj). "The plant of the employer" shall include the place of business of a third person while the employer has access to, or control over such place of business for the purpose of carrying on his usual trade, business, or occupation.

Section 6 (kk). "An independent contractor" is one who renders service in the course of an occupation, representing the will of his employer only as the result of his work and not as to the means by which it is accomplished.

Section 7 (a). In computing compensation to children and to brothers and sisters, only those under sixteen years of age, or invalid children over the age of sixteen years shall be included, and, in the case of invalid children, only during the period in which they are under that disability (within the maximum time limitations elsewhere in this Act provided), after which payment on account of such person shall cease. Compensation to children, or brothers or sisters (except invalids) shall cease when such persons reach the age of sixteen years.

Section 7 (b). If any beneficiaries or major or minor dependents of a deceased employee die, or if the widow or widower remarry, the right of such beneficiary or major or minor dependent, of such widow or widower, to compensation under this Act shall cease.

Section 8 (a). No compensation under this Act, except as otherwise provided by treaty, shall be paid to any major or minor dependents not residing within the United States at the time of the injury to the decedent.

Section 8 (b). Except as otherwise provided by treaty, no compensation in excess of fifty per centum of the compensation provided in this Act, shall be payable to any beneficiary not residing within the United States at the time of the injury to the decedent; provided, however, that no compensation shall be allowed to any non-resident, alien beneficiary who is a citizen of a government having compensation law which excludes citizens of the United States, either resident or non-resident, from partaking of the benefit of such law in the same degree as herein extended to non-resident beneficiaries.

Section 8 (c). Nothing in Section 8 (b) shall prevent the compromise of any sums due a beneficiary not residing in the United States at the time of the injury to the decedent for a sum less than fifty per centum of the compensation provided in this Act, upon the approval of the Board of such compromise settlement.

Section 8 (d). Before payment of compensation to a beneficiary not residing within the United States, satisfactory proof of such relationship as to constitute a beneficiary under this Act shall be furnished by such beneficiary duly authenticated under seal of an officer of a court of law in the country where such beneficiary resides, at such times and in such manner as may be required by the Board. And such proof shall be conclusive as to the identity of such beneficiary, and any other claim of any other person to any such compensation shall be barred from and after the filing of such proof.

Section 9 (a). Payment of compensation to a beneficiary not residing within the United States may be made to any plenipotentiary, or consul or consul agent within the United States, representing the country in which such non-resident beneficiary resides, and the written receipt of such plenipotentiary, or consul, or consular agent shall acquit the employer, the insurer, or the Board, as the case may be.

Section 9 (b). Where payment is due to a child under sixteen years of age, or to a person adjudged incompetent the same shall be made to the parent, or to the duly appointed guardian as the case may be, and the written receipt of such parent or guardian shall acquit the employer, the insurer, or Board, as the case may be. In other cases, payment shall be made to the person entitled thereto, or to his duly authorized representative.

Section 10 (a). In case of personal injury or death, all claims shall be forever barred unless presented within six months from the date of the happening of the accident.

Note—Section 10 (a) was amended by the Legislature of 1919, receiving executive approval on March 4, 1919, to read as follows:

"Section 10 (a). In case of personal injury or death all claims shall be forever barred unless presented in writing under oath to the employer, the insurer, or the Board, as the case may be, within six months from the date of the happening of the accident, either by the claimant or someone legally authorized to act for him in his behalf."

Section 10 (b). No limitations of time, as provided in this Act, shall run as against any injured workman who is mentally incompetent and without a guardian, or an injured minor under sixteen years of age who may be without a parent or guardian. A guardian in either case may be appointed by any court of competent jurisdiction, in which event the period of limitation, as provided in Section 10 (a), shall begin to run on the date of the appointment of such guardian, or when such minor arrives at the age of sixteen years.

Section 11 (a). Where any employer procures any work to be done, wholly or in part for him by a contractor other than an independent contractor, and the work so procured to be done is a part or process in the trade or business of such employer shall be liable to pay all compensation under this Act to the same extent as if the work were done without the intervention of such contractor. And the work so procured to be done shall not be construed to be "casual employment."

Section 11 (b). Where any employer procures work to be done as specified in Section 11 (a), such contractor and his employees shall be presumed to have elected to come under that plan of compensation adopted by the employer, unless they shall have otherwise elected, as provided herein.

Section 11 (c). Where any employer procures any work to be done, wholly or in part for him, by a contractor, where the work so procured to be done is casual employment as to such employer, then such contractor shall become the employer for the purpose of this Act.

Section 11 (d). Where any employer procures any work to be done, payment for which is to be made in property other than money or its equivalent, and the value of which property is speculative or intangible, the wages of the employees receiving such compensation shall be determined by the Board in accordance with the going wage for the same or similar work in the district or locality where the same is to be performed; provided, however, that where an employer procures any work to be done by any contractor, or through him by a sub-contractor, the payment for which is to be made in property other than money or its equivalent, and the value of which property is speculative or intangible, then and in that event the employer shall not be liable for compensation but such liability shall fall upon the contractor or sub-contractor as the case may be.

Section 12 (a). If an injured employee dies and the injury was the proximate cause of such death, then the beneficiary or the major or minor dependents of the deceased, as the case may be, shall re-

ceive the same compensation as though the death occurred immediately following the injury, but the period during which the death benefit shall be paid shall be reduced by the period during, or for which compensation was paid for the injury.

Section 12 (b). If the employee shall die from some cause other than the injury, there shall be no liability for compensation after his death.

Section 12 (c). The question as to who constitutes a beneficiary, or a major or minor dependent, shall be determined as of the date of the happening of the accident to the employee, whether death shall immediately result therefrom or not.

Section 13 (a). Whenever in case of injury the right to compensation under this Act would exist in favor of any employee, he shall upon the written request of his employer or the insurer, submit from time to time, to examination by a physician, who shall be provided and paid for by such employer or insurer, and shall likewise submit to examination, from time to time, by any physician selected by the Board, or any members or examiner, or referee thereof.

Section 13 (b). The request or order for such examination shall fix a time and place therefor, due regard being had to the convenience of the employee and his physical condition and ability to attend at the time and place fixed. The employee shall be entitled to have a physician, provided and paid for by himself, present at any such examination. So long as the employee, after such written request shall fail or refuse to submit to such examination, or shall, in any way obstruct the same, his right to compensation shall be suspended. Any physician, employed by the employer, the insurer, or the Board, who shall make or be present at any such examination may be required to testify as to the results thereof.

Section 14 (a). Nothing in this Act shall be construed as preventing employers and workmen from waiving the provisions of Section 16 (f) of this Act, and entering into mutual contracts or agreements providing for hospital benefits and accommodations to be furnished to the employee.

Section 14 (b). Such hospital contract or agreements must provide for medical, hospital, and surgical attendance for such employee for sickness contracted during the employment, except venereal diseases and sickness as a result of intoxication, as well as for injuries received arising out of and in the course of the employment.

Section 14 (c). No assessment of employees for such hospital contracts or benefits shall exceed \$1.00 per month for each employee, except in cases where it shall appear to the satisfaction of the Board, after a hearing had for that purpose that the actual cost of such service exceeds the said sum of \$1.00 per month, and any such findings by the Board may be modified at any time when justified by a change of conditions, or otherwise, either upon the Board's own motion, or the application of any party in interest.

Section 14 (d). No profit, directly or indirectly, shall be made by any employer as a result of such hospital contract or assessments. It is the purpose and intent of this Act to provide that where hospitals are maintained by employers such hospitals shall be no more than self-supporting from assessment of employees, and that where hospitals are maintained by other than the employer, all sums derived by assessment of employees shall be paid in full to such hospital without deduction by the employer.

Section 14 (e). Each and every hospital maintained wholly or in part by payments from workmen, which furnishes treatment and services to employees for sickness and injury, as provided in this Act shall be under the supervision of the Board as to the services and treatment rendered such employees, and shall, from time to time, make reports of such services, attendances, treatments, receipts and disbursements as the Board may require.

Section 14 (f). Neither an employer, an insurer, nor the Board, shall be liable in any way for any act in connection with the treatment or care, or malpractice in treatment or care, of any sickness or injury sustained by an employee, or the beneficiary of any hospital contract, where such act or treatment or malpractice in treatments is caused, or alleged to have been caused by any physician, hospital or attendant furnished by such employer, insurer, or the Board. In any action for malpractice arising out of the operation of this Act the merits of such action shall be investigated by the Industrial Accident Board and the finding of the Board in relation thereto shall be filed with the Clerk of the Court in which such action is pending.

Section 15. In any action to recover damages for any act connected with the treatment or care or malpractice in treatment or care, of any sickness of, or injury sustained by an employee, the question of whether or not due care was given by the defendants shall be a question of law for the Court.

Section 16. Every employer who shall become bound by and subject to the provisions of Compensation Plan Number One, and every employer and insurer who shall become bound by and subject to the provisions of Compensation Plan Number Two, and the Industrial Accident Fund where the employer of the injured employee has become bound by and subject to the provisions of Compensation Plan Number Three, shall be liable for the payment of compensation in the manner and to the extent hereinafter provided to an employee who has elected to come under this Act, and who shall receive an injury arising out of and in the course of his employment, or in the case of his death from such injury, to his beneficiaries, if any; or, if none, to his major dependents, if any; or, if none, to his minor dependents, if any.

Section 16 (a). For an injury producing temporary total disability, fifty per centum of the wages received at the time of the injury, subject to a maximum compensation of ten dollars per week and a minimum compensation of six dollars per week; provided, that

if at the time of injury the employee received wages of less than six dollars per week, that he shall receive the full amount of such wages per week. Such compensation shall be paid during the period of disability, but not, however, in any event, exceeding 300 weeks.

Note—Section 16 (a), as amended by the Legislature of 1919, approved March 4, 1919, reads as follows:

"Section 16 (a). For an injury producing temporary total disability, fifty per centum of the wages received at the time of the injury, subject to the maximum compensation of twelve dollars and fifty cents per week and a minimum compensation of six dollars per week, provided, that if at the time of injury the employee received wages of less than six dollars per week, he shall receive the full amount of such wages per week. Such compensation shall be paid during the period of disability, but not, however, in any event, exceeding three hundred weeks."

Section 16 (b). For an injury producing total disability permanent in character, fifty per centum of the wages received at the time of the injury, subject to a maximum compensation of ten dollars per week, and a minimum compensation of six dollars per week; provided, that if at the time of the injury the employee received wages of less than six dollars per week, then he shall receive the full amount of such wages per week. Such compensation shall be paid during the period of disability, not exceeding 400 weeks, after which time payment shall continue during disability at the rate of five dollars per week.

Note—Section 16 (b), as amended by the Legislature of 1919, approved March 4, 1919, reads as follows:

"Section 16 (b). For an injury producing total disability, permanent in character, fifty per centum of the wages received at the time of the injury, subject to a maximum compensation of twelve and one-half dollars per week, and a minimum compensation of six dollars per week; provided, that if at the time of the injury the employee received wages of less than six dollars per week, then he shall receive the full amount of such wages per week. Such compensation shall be paid during the period of disability, not exceeding four hundred weeks, after which time payment shall continue during disability at the rate of five dollars per week."

Section 16 (c). For an injury producing partial disability, one-half of the difference between the wages received at the time of the injury and the wages which such injured employee is able to earn thereafter, not exceeding, however, the difference between the wages which the injured employee is able to earn after the injury and the maximum compensation allowed in cases of total disability; provided, however, that such a sum shall be paid as compensation in each case, which, when added to the wages which the injured employee is able to earn after the injury, will equal the minimum compensation allowed in cases of total disability. Such compensation shall be paid during the period of disability, not exceeding, however, 150 weeks in cases of permanent partial disability and 50 weeks in cases of temporary partial disability.

Note—Section 16 (c), as amended by the Legislature of 1919, approved March 4, 1919, reads as follows:

"Section 16 (c). For an injury producing partial disability, one-half of the difference between the wages received at the time of the

injury and the wages that such injured employee is able to earn thereafter, not exceeding, however, one-half the maximum compensation allowed in cases of total disability, and not exceeding seventy-five per cent of the total compensation provided in this Act for the total loss of the member causing such partial disability. Such compensation shall be paid during the period of disability, not exceeding, however, one hundred and fifty weeks in cases of permanent partial disability and fifty weeks in cases of temporary partial disability."

Section 16 (d). Where the injury causes death, fifty per centum of the wages received at the time of the injury, to his beneficiaries, if any, residing within the United States at the date of the happening of the injury, or, if residing outside of the United States, fifty per centum of such compensation, or, if none, then forty per centum of the wages received at the time of the injury to his major dependents, if any, if residing in the United States at the date of the happening of the injury, or, if none, then thirty per centum of the wages received at the time of the injury, to his minor dependents, if any, residing within the United States at the date of the happening of the injury, subject to a maximum compensation of ten dollars per week and minimum compensation of six dollars per week, for a period not exceeding 400 weeks; provided, that if at the time of the injury the employee received wages of less than six dollars per week, the full amount of such wages per week for a period of not exceeding 400 weeks.

Note—Section 16 (d), as amended by the Legislature of 1919, approved March 4, 1919, reads as follows:

"Section 16 (d). Where the injury causes death, fifty per centum of the wages received at the time of the injury, to his beneficiaries, if any, residing within the United States, at the date of the happening of the injury, or if residing outside of the United States, fifty per centum of such compensation, or if none, then forty per centum of the wages received at the time of the injury to his major dependents, if any, if residing in the United States at the date of the happening of the injury, or if none, then thirty per centum of the wages received at the time of the injury to his minor dependents, if any, residing within the United States at the date of the happening of the injury, subject to a maximum compensation of twelve and 50/100 dollars per week, and a minimum compensation of six dollars per week, for a period not exceeding four hundred weeks; provided that if at the time of the injury the employee received wages of less than six dollars per week, the full amount of such wages per week for a period of not exceeding 400 weeks."

Section 16 (e). There shall be paid, in addition to other compensation, if death occurs within six months of the happening of the injury, the reasonable burial expenses of the employee, not exceeding \$75.00. If the employee leaves no beneficiaries, or major, or minor dependents, this shall be the only compensation.

Section 16 (f). During the first two weeks after the happening of the injury, the employer or insurer, or the accident fund, as the case may be, shall furnish reasonable medical and hospital services and medicines as and when needed, in an amount not to exceed fifty dollars in value, except as otherwise in this Act provided, and when the employer is a party to a hospital contract, unless the employee shall refuse to allow them to be furnished.

Section 16 (g). No compensation shall be allowed or paid during the first two weeks of any injury, except as may be required by the provisions of Section 16 (f).

Section 16 (h). Compensation for all classes of injuries shall run consecutively and not concurrently, and as follows: First, the two weeks' medical and hospital services and medicines as provided in Section 16 (f), unless the employee is a contributor to a hospital fund, as otherwise in this Act provided; after the first two weeks, compensation as provided in Section 16 (a), or 16 (b), or 16 (c); following, either or none of the above, compensation as provided in Section 16 (i); following any or either, or none of the above, if death results from the accident within six months of the date of the injury, burial expenses as provided in Section 16 (e); following which, compensation to beneficiaries, if any; following which, if no beneficiaries, compensation to major dependents, compensation to minor dependents, if any. Provided, that no compensation shall be paid to a major or minor dependent who does not reside within the United States, or who did not reside within the United States at the date of the happening of the injury. Compensation due to beneficiaries shall be paid to the surviving spouse, if any, or if none, then divided equally among or for the benefit of the children. Compensation due to major dependents, where there be more than one, shall be divided equally among them.

Section 16 (i). In case of the following specified injuries, the compensation, in lieu of any other compensation provided by this Act, other than that provided in Section 16 (f), unless the employee is a contributor to a hospital fund as otherwise in this Act provided, shall be fifty per centum of the wages received at the time of the injury, subject to a maximum compensation of ten dollars per week and a minimum compensation of six dollars per week; provided, that if, at the time of the injury the employee received wages of less than six dollars per week, then he shall receive the full amount of such wages per week, and shall be paid for the following periods:

For the loss of:

One arm at or near shoulder	200 weeks
One arm at the elbow.....	180 weeks
One arm between wrist and elbow.....	160 weeks
One hand	150 weeks
One thumb and the metacarpal bone thereof.....	60 weeks
One thumb at the proximal joint.....	30 weeks
One thumb at the second distal joint.....	20 weeks
One first finger and the metacarpal bone thereof.....	30 weeks
One first finger at the proximal joint.....	20 weeks
One first finger at the second joint	15 weeks
One first finger at the distal joint	10 weeks
One second finger and the metacarpal bone thereof....	30 weeks
One second finger at the proximal joint.....	15 weeks
One second finger at the second joint	10 weeks
One second finger at the distal joint.....	5 weeks

One third finger and the metacarpal bone thereof.....	20 weeks
One third finger at the proximal joint.....	12 weeks
One third finger at the second joint	8 weeks
One third finger at the distal joint	4 weeks
One fourth finger and the metacarpal bone thereof....	12 weeks
One fourth finger at the proximal joint.....	9 weeks
One fourth finger at the second joint.....	6 weeks
One fourth finger at the distal joint	3 weeks
One leg at or near the hip joint as to preclude the the use of an artificial limb	180 weeks
One leg at or above the knee where stump remains sufficient to permit the use of an artificial limb	150 weeks
One leg between the knee and ankle.....	140 weeks
One foot at the ankle	125 weeks
One great toe with the metatarsal bone thereof.....	30 weeks
One great toe at the proximal joint	15 weeks
One great toe at the second joint	10 weeks
One toe other than the great toe with the metatarsal bone thereof	12 weeks
One toe other than the great toe at proximal joint....	6 weeks
One toe other than the great toe at second or distal joint	3 weeks
One eye by enucleation	120 weeks
Total blindness of one eye	100 weeks

The loss of both hands, or both arms, or both feet, or both legs, or both eyes, or any two thereof, in the absence of conclusive proof to the contrary shall constitute total disability, permanent in character.

Section 16 (j). A workman in order to be entitled to compensation for hernia must clearly prove: (1) That the hernia is of recent origin, (2) that its appearance was accompanied by pain, (3) that it was immediately preceded by some accidental strain suffered in the course of the employment, and (4) that it did not exist prior to the date of the alleged injury. If a workman, after establishing his right to compensation for hernia, as above provided, elects to be operated upon, a special operating fee of not to exceed fifty dollars shall be paid by the employer, the insurer, or the Board, as the case may be. In case such workman elects not to be operated upon, and the hernia becomes strangulated in the future, the result from such strangulation will not be compensated.

Section 16 (k). For the purpose of Section 16 (i), the complete paralysis of an arm, hand, foot, or leg shall be considered the loss of such member. For the purpose of Section 16 (i), the complete paralysis of both arms, both hands, both feet, or both legs, or any two of them, shall be considered the loss of such members.

Section 16 (l). Should a further accident occur to a workman, or who has been previously the recipient of a payment or payments under this Act, his further compensation shall be adjusted according to

the other provisions of his Act, and with regard to the combined effect of his injuries and his past receipt of compensation.

Section 16 (m). If aggravation, diminution or termination of disability takes place, or be discovered, after the rate of compensation shall have been established, or compensation terminated in any case, where the maximum payments for disabilities as provided in this Act have not been reached, such changes may be adjusted for future application of compensation in accordance with the provisions hereof, or, in a proper case, terminate the payments.

Section 16 (n). All payments of compensation, as provided in this Act, shall be made monthly, except as otherwise provided herein.

Section 16 (o). The monthly payments provided for in this Act may be converted, in whole or in part, into a lump sum payment, which lump sum payment shall not exceed the estimated value of the present worth of the deferred payments capitalized at the rate of five per centum per annum. Such conversion can only be made upon the written application of the injured workman, his beneficiary or major or minor dependents, as the case may be, and shall rest in the discretion of the Board, both as to the amount of such lump sum payment, and the advisability of such conversion.

Note.—Section 16 (o), as amended by the Legislature of 1919, approved March 4, 1919, reads as follows:

"Section 16 (o). The monthly payments provided for in this Act may be converted in whole or in part, into a lump sum payment, which lump sum payment shall not exceed the estimated value of the present worth of the deferred payments capitalized at the rate of five per centum per annum. Such conversion can only be made upon the written application of the injured workman, his beneficiary or major or minor dependents, as the case may be, and shall rest in the discretion of the Board both as to the amount of such lump sum payment, and the advisability of such conversion. The Board is hereby vested with full power, authority and jurisdiction to compromise claims and to approve compromises of claims under this Act; and all settlements and compromises of compensation provided in this Act shall be absolutely null and void without the approval of the Board."

Section 17 (a). No payments under this Act shall be assignable, subject to attachment or garnishment, or be held liable in any way for any debts.

Section 17 (b). In case of bankruptcy, insolvency, liquidation, or the failure of an employer or insurer to meet any obligations imposed by this Act, every liability which may be due under this Act shall constitute a first lien upon any deposit made by such employer or insurer, and if such deposit shall not be sufficient to secure the payment of such liability in the manner, and at the times provided for in this Act, the deficiency shall be a lien upon all the property of such employer or insurer within this State, and shall be prorated with other lienable claims and shall have preference over the claim of any creditor or creditors of such employer or insurer except the claims of other lienors.

Section 17 (c). No agreement by an employee to waive any rights under this Act for an injury to be received shall be valid.

Section 17 (d). Any employer who shall misrepresent to the Board the amount of a pay-roll upon which the premiums or assessments under Compensation Plan Number Three are to be levied, or upon which fees for factory inspection, subsequent inspection, or re-inspection, as elsewhere provided in this Act, are based, shall be liable to the State in ten times the amount of difference between the amount paid and the amount which should have been paid. Such liability may be recovered in a civil action brought in the name of the State. All sums collected under this section shall be paid into the fund to which the original payments were, or should have been credited.

Section 17 (e). The provisions of this Act shall not apply to any railroad engaged in interstate commerce, except that railroad construction work shall be included in and subject to the provisions of this Act.

Section 17 (f). Every employer coming under the provisions of Compensation Plan Number One, and every insurer coming under the provision of Compensation Plan Number Two, shall, on or before the fifteenth day of each and every month, file with the Industrial Accident Board duplicate receipts for all payments made during the previous month to injured workmen or their beneficiaries or dependents; and statements showing the amounts expended during the previous month for medical, surgical and hospital services and for the burial of injured workmen.

Section 17 (g). No claims to recover compensation under this Act, for injuries not resulting in death, shall be maintained unless, within sixty days after the occurrence of the accident which is claimed to have caused the injury, notice in writing, stating the name and address of the person injured, the time and the place where the accident occurred and the nature of the injury, and signed by the person injured, or some one in his behalf, shall be served upon the employer or the insurer; provided, however, that actual knowledge of such accident and injury on the part of such employer or his managing agent or superintendent in charge of the work upon which the injured employee was engaged at the time of the injury shall be equivalent to such service.

Section 17 (h). Every employer of labor, and every insurer is hereby required to file with the Board, under such rules and regulations as the Board may from time to time make a full and complete report of every accident to an employee arising out of or in the course of his employment and resulting in loss of life or injury to such person. Such reports shall be furnished to the Board in such form and such detail as the Board shall from time to time prescribe, and shall make specific answer to all questions required by the Board under its rules and regulations, except, in case he is unable

to answer any such questions, a good and sufficient reason shall be given for such failure.

Section 17 (i). No information furnished to the Board by an employer or an insurer shall be open to public inspection, or made public except on order of the Board, or by the Board, or a member of the Board in the course of a hearing or proceeding. Any officer or employee of the Board who, in violation of the provisions of this section divulges any information, shall be guilty of a misdemeanor.

Section 17 (j). Whenever it is necessary to estimate the sum of money to set aside as a reserve in any case, the American Experience Table of Mortality shall be used.

Section 17 (k). It shall be unlawful for the employer to deduct or obtain any part of any premium required to be paid by this Act from the wages or earnings of his workmen, or any of them, and the making, or attempt to make any such deduction shall be a misdemeanor, except that nothing in this section shall be construed as prohibiting contributions by employees to a hospital fund as elsewhere in this Act provided.

Section 18 (a). All hearings and investigations before the Board, or any member thereof, shall be governed by this Act and by rules of practice and procedure to be adopted by the Board, and in the conduct thereof neither the Board, nor any member thereof shall be bound by the technical rules of evidence. No informality in any proceedings, or in the manner of taking testimony shall invalidate any order, decision, award, rule or regulation made, approved, or confirmed by the Board.

Section 18 (b). The Board, or any member thereof or any party to the action or proceeding may, in any investigation or hearing before the Board, cause the deposition of witnesses residing within or without the State to be taken in the manner prescribed by law for like depositions in civil actions in the district courts of this State, and to that end may compel the attendance of witnesses and the production of books, documents, papers and accounts.

Section 18 (c). The Board is hereby vested with full power, authority and jurisdiction to do and perform any and all things, whether herein specifically designated or in addition thereto, which are necessary or convenient in the exercise of any power, authority, or jurisdiction conferred upon it under this Act.

Section 18 (d). The Board and each member thereof shall have power to issue writs of summons, warrants of attachment, warrant of commitment, and all necessary process in proceedings for contempt in like manner and to the same extent as courts of record. The process issued by the Board, or any member thereof, shall extend to all parts of the State and may be served by any persons authorized to serve process of courts of record, or by any person designated for that purpose by the Board, or any member thereof.

The person executing any such process shall receive such compensation as may be allowed by the Board, not to exceed the fees now prescribed by law for similar service and such fees shall be paid in the same manner as provided herein for the fees of witnesses.

Section 18 (e). The Board, and each member thereof, its secretary and referees, shall have the power to administer oaths, certify to all official acts, and to issue subpoenas for the attendance of witnesses and the production of papers, books, accounts, documents and testimony in any injury, investigation, hearing, or proceeding in any part of the State. Each witness who shall appear, by order of the Board, or any member thereof shall be entitled to receive, if demanded, for his attendance the same fees and mileage allowed by law to a witness in civil cases in the District Court, which amount shall be paid by the party at whose request such witness is subpoenaed, unless otherwise ordered by the Board. When any witness, who has not been required to attend at the request of any party, is subpoenaed by the Board, his fees and mileage may be paid from the funds, appropriated for the uses of the Board in the same manner as other expense of the Board are paid. Any witness subpoenaed, except one whose fees and mileage may be paid from the funds of the Board, may at the time of service demand the fee to which he is entitled for travel to and from the place at which he is required to appear, and one day's attendance. If such witness demands such fees at the time of service and they are not at that time paid or tendered, he shall not be required to attend before the Board, or a member thereof or referee, as directed in the subpoena.

Section 18 (f). The District Court in and for the county in which any inquiry, investigation, hearing or proceeding may be held by the Board, or any member thereof, shall have the power to compel the attendance of witnesses, the giving of testimony and the production of papers, books, accounts and documents as required by any subpoena issued by the Board, or any member thereof. The Board, or any member thereof, before whom the testimony is to be given or produced, in case of the refusal of any witness to attend or testify or procure any papers required by such subpoena, may report to the District Court in and for the County in which the proceeding is pending, by petition, setting forth that due notice has been given of the time and place fixed for the attendance of said witness, or the production of said papers, and that the witness has been summoned in the manner prescribed in this Act, and that the witness has failed and refused to attend, or produce the papers required by the subpoena before the Board or any member thereof in the case of proceeding named in the notice and subpoena, or has refused to answer questions propounded to him in the course of such proceedings, and ask an order of said court compelling the witness to attend and testify or produce said papers before the Board. The court, upon the petition of the Board, or any member of the Board, shall enter an order directing the witness to appear before the court at the time and place to be fixed by the court in such order not more than ten days

from the date of the order, and then and there show cause why he had not attended or testified, or produced such papers before the Board. A copy of said order shall be served upon said witness. If it shall appear to the court that said subpoena was regularly issued by the Board, or a member thereof, and regularly served, the court shall thereupon enter an order that said witness appear at the time and place fixed in said order, and testify or produce the required papers, and upon failure to obey said order, said witness shall be dealt with as for contempt of court. The remedy provided in this section is cumulative and shall not be construed to impair or interfere with the power of the Board, or a member thereof, to enforce the attendance of witnesses and the production of papers, and to punish for contempt, in the same manner and to the same extent as courts of record.

Section 18 (g). Copies of official documents and orders filed or deposited according to law in the office of the Board, certified by a member of the Board or by the secretary under the official seal of the Board to be true copies of the original shall be evidence in like manner as the originals.

Section 18 (h). The costs and disbursements, incurred in any proceeding or hearing before the Board, or a member thereof, may be apportioned between the parties on the same or adverse sides in the discretion of the Board.

Section 19. The books, records, and pay-rolls of the employer, pertinent to the administration of this Act shall always be open to inspection by the Board or any duly authorized employee thereof, for the purpose of ascertaining the correctness of the pay-roll; the number of men employed, and such other information as may be necessary for the Board and its management under this Act. Refusal on the part of the employer to submit said books, records, and pay-rolls for such inspection shall subject the offending employer to a penalty of One Hundred Dollars for each offense, to be collected by civil action in the name of the State, and paid into the Industrial Administration Fund.

Section 20 (a). All proceedings to determine disputes or controversies arising under this Act shall be instituted before the Board, and not elsewhere, and heard and determined by them, except as otherwise in this Act provided, and the Board is hereby vested with full power, authority and jurisdiction to try and finally determine all such matters, subject only to review in the manner and within the time in this Act provided.

Section 20 (b). All orders, rules, and regulations, findings, decisions, and awards of the Board in conformity with law shall be in force and shall be prima facie lawful; and all such orders, rules, and regulations, findings, decisions, and awards shall be conclusively presumed to be reasonable and lawful, until and unless they are modified or set aside by the Board or upon review.

Section 20 (c). After a final hearing by the Board, it shall within thirty days make and file its findings upon all facts involved in the controversy, and its awards, which shall state its determination as to the right of the parties.

Section 20 (d). The Board in its award may fix and determine the total amount of compensation to be paid and specify the manner of payment, or may fix and determine the weekly disability indemnity to be paid and order payment thereof during the continuance of such disability; providing, however, that the payment of such award and indemnity shall be in the same manner as that of undisputed awards and indemnities coming within the particular plan provided for in this Act to which said award and indemnity belong.

Section 20 (e). If in any proceeding it is proved that an accident has happened for which the employer would be liable to pay compensation if disability has resulted therefrom, but it is not proved that an incapacity has resulted, the Board may, instead of dismissing the application, award a nominal disability indemnity if it appears that disability is likely to result at a future time.

Section 20 (f). The Board shall have continuing jurisdiction over all its orders, decisions, and awards and may, at any time, upon notice, and after opportunity to be heard is given to the parties in interest, rescind, alter or amend any such order, decision, or award made by it upon good cause appearing therefor. Any order, decision or award rescinding, altering, or amending a prior order, decision or award, shall have the same effect as original orders, or awards.

Section 20 (g). A full and complete record shall be kept of all proceedings and hearings had before the Board or any member thereof, of any formal hearing had and all testimony produced before the Board, or any member thereof, shall be taken down by a stenographic reporter appointed by the Board, and the parties shall be entitled to be heard in person or by attorney. In cases of an action to review any order or decision of the Board, a transcript of such testimony, together with all exhibits, and of the pleadings, records and proceedings in the cause shall constitute the record of the Board.

Section 20 (h). No order or decision of the Board shall be subject to collateral attack, and may be reviewed or modified only in the manner provided herein.

Section 21 (a). At any time within twenty days after the service of any order or decision of the Board, any party or parties aggrieved thereby may apply for a rehearing upon one or more of the following grounds and upon no other grounds.

1. That the Board acted without or in excess of its powers.
2. That the order, decision or award was procured by fraud.
3. That the evidence does not justify the findings.

4. That the applicant has discovered new evidence, material to him, and which he could not, with reasonable diligence, have discovered and produced at the hearing.

5. That the findings do not support the order, decision or award.

6. That the order, decision, or award is unreasonable.

Section 21 (b). Nothing contained in Section 21 (a) shall, however, be construed to limit the right of the Board, at any time after the date of its award, and from time to time after due notice and upon the application of any party interested, to review, diminish or increase within the limits provided by this Act, any compensation awarded upon the grounds that the disability of the person in whose favor such award was made has either increased or diminished or terminated.

Section 21 (c). The application for hearing shall set forth specifically and in full detail the grounds upon which the applicant considers said order, decision, award, rule, or regulation to be unjust or unlawful, and shall in other respects conform to such rules and regulations as the Board may prescribe.

Section 21 (d). The Board shall have full power and authority to make and prescribe rules to govern the procedure upon rehearing, and any matter before it and any order made after such rehearing abrogating or changing the original order shall have the same force and effect as an original order and shall not affect any right, or enforcement of any right, arising from or by virtue of the original order.

Section 21 (e). Any application for rehearing or the appeal hereinafter provided shall not excuse any employer, employee, or other person, from complying with or obeying any order or requirement of the Board, or operate in any manner to stay or postpone the enforcement of an order or requirement thereof, except as the Board or the Court may direct.

Section 22 (a). Within thirty days after the application for a rehearing is denied, or, if the application is granted, within thirty days after the rendition of the decision on the rehearing, and within twenty days after notice thereof, any party affected thereby may appeal to the District Court of the Judicial District of the State of Montana, including the County in said State wherein the employer may have his place of residence, or if such employer be a corporation, may have its principal office or place of business, or if said appeal be prosecuted by an injured workman or his dependents, such appeal may be taken to the District Court wherein is located the county within which such workman was injured, which said appeal shall be for the purpose of having the lawfulness of the original order, decision or award, or the order, decision or award on rehearing inquired into and determined.

Section 22 (b). Said appeal shall be taken by serving a written notice of said appeal upon the chairman of such Industrial Accident Commission, or upon any other member thereof, which said service shall be made by the delivery of a copy of such notice to such chairman or member, and filing the original with the clerk of the court to which said appeal is taken. A copy of such notice must also be served upon the adversary party if there be any, by mailing the same to said adversary party to such address of such party as said party shall have left with the Board. If such party shall have left no address with the Board then no service upon such party shall be required. The order of filing and service of said notice is immaterial. Immediately upon service upon said Board of said notice, the said Board shall certify to said District Court the entire record and proceedings, including all testimony and evidence taken by said Board, with the Clerk of said District Court. Immediately upon the return of such certified record, the District Court shall fix a day for the hearing of said cause, and shall cause notice to be served upon the Board and upon the appellant, and also upon the adversary party, if there be any. The court may, upon the hearing, for good cause shown, permit additional evidence to be introduced, but, in the absence of such permission from the Court, the cause shall be heard on the record of the Board as certified to the court by it. The trial of the matter shall be de nova, and upon such trial the Court shall determine whether or not the Board regularly pursued its authority, and whether or not the findings of the Board ought to be sustained, and whether or not such findings are reasonable under all the circumstances of the case.

Section 22 (c). The Board, and each party to the action or proceeding before the Board, shall have the right to appear in the proceeding, and it shall be the duty of the Board to so appear. If the Court shall find from such trial, as aforesaid, that the findings and conclusions of the Board are not in accordance with either the facts or the law, or that they ought to be other or different than those made by the the Board, or that any finding or conclusion or any order, rule or requirement of the Board is unreasonable, the Court shall set aside such findings, conclusion, order, judgment, decree, rule or requirement of said Board, or shall modify or change the same as law and justice shall require, and the Court shall also make and enter any finding, conclusion, order or judgment that shall be required, or shall be legal and proper in the premises.

Section 22 (d). Either the Board, or the appellant, or any adversary party, if there be one, may appeal to the Supreme Court of the State of Montana, from any final order, judgment or decree of the said District Court, which said appeal shall be taken in like manner as appeals are now taken in other civil actions to the said Supreme Court, and upon such appeal the said Supreme Court shall make such orders in reference to a stay of proceedings as it finds to be just in the premises, and may stay the operation of any order, judgment, or decree of said District Court without requiring any bond

or undertaking from the applicant for such stay. When any such cause is so appealed it shall have precedence upon the calendar of said Supreme Court, and shall be tried anew by said Supreme Court upon the record made in said District Court and before said Board, and judgment and decree shall be entered therein as expeditiously as possible.

Section 23 (a). There is hereby appropriated out of the State Treasury, the sum of Fifty Thousand (\$50,000.00) Dollars, or so much thereof as may be necessary, to be known as the Industrial Administration Fund, out of which the salaries, traveling and office expenses of the Board shall be paid, and all other expenses incident to the administration of this Act.

Section 23 (b). There is hereby appropriated out of the Industrial Accident Fund such sums as may be necessary to pay the Compensation provided for in this Act.

Section 24 (a). Whenever this Act, or any part or section thereof, is interpreted by a court, it shall be liberally constructed by such court.

Section 24 (b). If any section, subsection, subdivision, sentence, clause, paragraph, or phrase of this Act is for any reason held to be unconstitutional or void, such decision shall not affect the validity of the remaining portions of this Act, so long as sufficient remains of the Act to render the same operative and reasonably affective for carrying out the main purpose and intention of the Legislature in enacting the same as such purpose and intention may be disclosed by the Act.

Section 24 (c). The moneys coming into the Industrial Accident Fund shall be held in trust for the purpose for which such fund is created, and if this Act shall be hereafter repealed, such moneys shall be subject to such disposition as may be provided by the Legislature repealing this Act; in default of such legislative provision, distribution thereof shall be in accordance with the justice of the matter, due regard being had to obligations of compensation incurred and existing.

Section 24 (d). This Act shall not affect any action pending or any cause of action existing on the thirtieth day of June, 1915.

Section 25 (a). The Board shall, not later than the first day of October of each year, make a report to the Governor covering its entire operations and proceedings for the preceding fiscal year, with such suggestions or recommendations as it may deem of value for public information. A reasonable number of copies of such report shall be printed for general distribution.

Section 25 (b). This Act shall take effect and be in force from and after its passage and approval, except as to its compensation provisions, which shall not take effect until the first day of July, 1915.

PART II.
COMPENSATION PLAN NUMBER ONE.

Section 30 (a). Any employer in the industries, trades, works, occupations, or employments in this Act specified as hazardous, by filing his election to become subject to and be bound by Compensation Plan Number One, upon furnishing satisfactory proof to the Board of his solvency and financial ability to pay the compensation, and benefits in this Act provided for, and to discharge all liabilities which are reasonably likely to be incurred by him during the fiscal year for which such election is effective, may by order of the said Board, make such payments directly to his employees as they may become entitled to receive the same under the terms and conditions of this Act.

Section 30 (b). Every such employer now or hereafter engaged in the State of Montana, in the industries, trades, works, occupations or employments herein mentioned, and who shall have elected to be bound by such Compensation Plan Number One, shall file such proof of his solvency within the time and in such form as may be prescribed by the rules or orders of the Board.

If such employer, making such election, shall be found by the Board to have the requisite financial ability to pay the compensation and benefits in this Act provided for, then the Board shall grant to such employer permission to carry on his said business for the fiscal year within which such election is made, and such proof filed, or the remaining portion of such fiscal year, and to make such payments directly to his employees as they may become entitled to receive the same. Every employer, so long as he continues in his said employment, and so long as he continues to be bound by such Compensation Plan Number One, shall at least thirty days before the expiration of each fiscal year, renew his application to be permitted to continue to make such payments as aforesaid directly to his employees for the next ensuing fiscal year and under like circumstances as those mentioned for the granting of such permission upon such first application, the Board may renew the same from year to year.

Section 30 (c). The Board may at any time require from any employer acting under Compensation Plan Number One additional proof of solvency and financial ability to pay the compensation provided by this Act, and may at any time, upon notice to such employer, of not less than ten or more than twenty days, after and upon a full hearing, revoke any order or approval theretofore made.

Section 30 (d). If said Industrial Accident Board shall find that such employer has not financial responsibility for the payment of the compensation herein provided to be paid which might reasonably be expected to be chargeable to such employer during the fiscal year to be covered by such permission, said Industrial Accident Board must so find, and must require such employer, before granting to him such permission, or before continuing or engaging in such employ-

ment, subject to the provisions of Compensation Plan Number One, to give security for such payment, which security must be in such an amount as said Board shall find it reasonable and necessary to meet all liabilities of such employer which may reasonably and ordinarily be expected to accrue during such fiscal year. Said security must be deposited with the Treasurer of the Board and may be a certain estimated per centum of said employer's last preceding annual pay-roll, or a certain per centum of the established amount of his annual pay-roll for said fiscal year, or said security may be in the form of a bond or undertaking executed to said Industrial Accident Board in the amount to be fixed by it with two or more sufficient sureties, which undertaking must be conditioned that such employer will well and truly pay or cause to be paid, all such sums and amounts for which the employer shall become liable under the terms of this Act to his employees during said fiscal year or such security may consist of any State, county, municipal, or school district bonds, or the bonds or evidence of indebtedness of any individuals or corporations which the Board may deem solvent; and every such deposit and the character and amount of such securities shall at all times be subject to approval, revision, or change by the Board as in its judgment may be required and upon proof of the final payment of the liability for which such securities are given, such securities, or any remaining part thereof shall be returned to the depositor. The Treasurer of the Board and his bondsmen shall be liable for the value and safe keeping of all such deposits or securities, and shall at any time, upon demand of the bondsmen or the depositor or the Board, account for the same, and the earnings thereof.

Section 30 (e). Upon the failure of said employer to pay any compensation provided for in this Act upon the terms and in the amounts and at the time when the same shall become due and payable, it shall be the duty of such State Accident Board, upon demand of the person to whom compensation is due, to apply any deposits made with the Board to the payment of the same, and it shall be its duty to take the proper steps to convert any securities on deposit with the said Board, or sufficient thereof, into cash and to pay the same upon the liabilities of said employer, accruing under the terms of this Act, and it shall be its duty, insofar as the same shall be necessary, to collect and enforce the collection of the liability of all sureties upon any bonds which may be given by the said employer to insure the payment of his said liability. And to these ends, and for these purposes, the Board shall be deemed to be the owner of said deposit and security and the obligee in said bond in trust for the said purposes and may proceed in its own name to recover upon such bonds or foreclose and liquidate said securities.

Section 30 (f). Within thirty days after the happening of an accident where death or the nature of the injury renders the amount of future payments certain, or reasonably certain, the employer shall make a deposit or give security as herein defined with the Treasurer of the Board for the protection and guaranty of the payment of such

liability in such sum as the Board may direct; provided, however, that if sufficient securities are already on deposit with the said Board or if the said Board shall have determined that the employer has sufficient financial responsibility to meet said liability of said employer, together with other liabilities already accrued, no such additional deposit or security shall be demanded .

Section 30 (g). Any employer against whom liability may exist for compensation under this Act may, with the approval of the Board, be relieved therefrom by (1) depositing the present value or the estimated present value of the total unpaid compensation for which such liability exists, assuming interest at five per centum per annum, with the Treasurer of the Board; or (2) purchasing an annuity within the limitations provided by law, in any insurance company granting annuities, and authorized to transact business in this State, subject to the approval of the Board.

PART III.

COMPENSATION PLAN NUMBER TWO.

Section 35 (a). Any employer in the industries, trades, works, occupations, or employments in this Act specified as hazardous, by filing his election to become subject to and bound by Compensation Plan Number Two, may insure his liability to pay the compensation and benefits herein provided for, in any insurance company authorized to transact such business in this State.

Section 35 (b). Any employer electing to become subject to and bound by Compensation Plan Number Two shall file with the Board written acceptance of the provisions of Compensation Plan Number Two, together with a statement upon forms provided by the Board of the nature of his employment, the character and location of his work, the number of men employed during the preceding year, or any part of the preceding year, and the probable number of men to be employed during the first fiscal year to be covered by such election, and the Board shall thereupon, determine the amount of insurance which will be reasonably necessary to secure the compensation with which the said employer may reasonably be expected to become chargeable during such fiscal year. And thereupon, the said employer shall file the policy or policies of insurance herein provided for with the Board, which policy or policies shall insure in the amounts so fixed by the Board against any and all liability of the employer to pay the compensation and benefits provided for in this Act. The amounts of such insurance shall be fixed by the Board for each ensuing fiscal year during which said employer shall engage in his said employment, and shall remain subject to the provisions of Compensation Plan Number Two, and for the purpose of fixing such amount of said insurance, the said Board may make all reasonable and necessary investigation, and the said employer shall furnish to such Board all information which it may require.

Section 35 (c). All policies insuring the payment of compensation under this Act must contain a clause to the effect that as between the employee and the insurer the notice to, or knowledge of the occurrence of the injury on the part of the insured shall be deemed notice or knowledge, as the case may be, on the part of the insurer; that jurisdiction of the insured for the purpose of this Act shall be jurisdiction of the insurer; and that the insurer shall, in all things, be bound by and subject to the awards, orders, judgments, or decrees rendered against such insured.

Section 35 (d). No such policy shall be issued unless it contains the agreement of the insurer that it will promptly pay to the person entitled to compensation all the installments of compensation or other payments in this Act provided for and that the obligation shall not be affected by any default of the insured after the injury, or by any default in the giving of any notice required by such policy or by this Act, or otherwise. Such agreement shall be construed to be a direct promise by the insurer to the person entitled to compensation.

Note—Section 35 (d), as amended by the Legislature of 1919, approved on March 4, 1919, reads as follows:

"Section 35 (d). No such policy shall be issued unless it contains the agreement of the insurer that it will promptly pay to the person entitled to compensation all the installments of compensation or other payments in this Act provided for and that the obligation shall not be effected by any default of the insured after the injury or by any default in the giving of any notice required by such policy or by this Act or otherwise. Such agreement shall be construed to be a direct promise by the insured to the person entitled to compensation. Before issuance of any policy by an insurer as herein authorized, such insurer must deposit with the treasurer of the Industrial Accident Board, bonds of the United States or the State of Montana or of any school district, county, city or town in the State of Montana, in an amount not less than five thousand dollars (\$5,000.00) or more than twenty thousand dollars (\$20,000.00) as the Industrial Accident Board may determine. If any insurer shall fail to discharge any liability after the amount thereof shall be determined by the Board, and within the time limited by the Board, it shall be the duty of the Board to convert said bonds or such part thereof as is necessary into cash, and from the proceeds liquidate such liability, and thereafter said insurer must make an additional deposit to meet any deficiency caused thereby."

Section 35 (e). Every policy for the insurance of the compensation herein provided for, or against liability therefor, shall be deemed to be made subject to the provisions of this Act. No insurer shall enter into any such policy of insurance unless its form shall have been approved by the Board, and as otherwise provided by law.

Section 35 (f). Every renewal of such policy shall be made and delivered to said Board at least thirty days prior to the expiration of the expiring policy.

Section 35 (g). Within thirty days of the happening of an accident where death, or the nature of the injury renders the amount of future payments certain or reasonably certain, the insurer shall make

a deposit as herein defined with the Treasurer of the Board for the protection and guaranty of the payment of such liability in such sum as the Board may direct.

Note—Section 35 (g), as amended by the Legislature of 1919, approved March 4, 1919, reads as follows:

"Section 35 (g). Within thirty days of the happening of an accident where death or the nature of the injury renders the amount of future payments certain or reasonably certain, the insurer shall make a deposit as herein defined, with the treasurer of the Board for the protection and guarantee of the payment of such liability in such sum as the Board may direct, provided that if the Board deems the amount on deposit by said insurer under the provisions of Section 35 (d) sufficient to cover all liabilities of the insurer, then no further deposit shall be required."

Section 35 (h). Any insurer against whom liability may exist for compensation under this Act may, with the approval of the Board, be relieved therefrom by (1) depositing the present value of the estimated present value of the total unpaid compensation for which such liability exists, assuming interest at five per centum per annum, with the Treasurer of the Board; or (2) by purchasing an annuity within the limitations provided by law in any insurance company granting annuities and authorized to transact business in this State, subject to the approval of the Board.

Section 35 (i). No policy of insurance issued under the provisions of Compensation Plan Number Two shall be cancelled within the time limited for its expiration except upon thirty days' notice to the employer in favor of whom such policy is issued, and to the Board, unless such policy sought to be cancelled shall have been sooner replaced by other insurance.

Section 35 (j). Every insurance company transacting business under this Act, shall, at the time and in the manner prescribed by the Board, make and file with the Board such reports of accidents as the Board may require.

Section 35 (k). Every policy or contract insuring against liability for compensation under Compensation Plan Number Two must contain a clause to the effect that the insurer shall be directly and primarily liable to and will pay directly to the employee or in case of death, to his beneficiaries, or major or minor dependents, the compensation, if any, for which the employer is liable. Every such policy shall at all times be subject to the approval, change, or revision by the Board, and shall contain the clauses, agreements, and promises required by this Act.

Section 35 (l). Any deposit made under the provisions of Compensation Plan Number Two shall be held in trust by the Treasurer of the Board as security for the payment of the liability for which the deposit was made. Such deposit may be reduced from time to time with the permission of the Board, as the payment of the liability of the insurer may reduce the amount required to be on deposit. Such deposit may be changed or renewed when desired by the depositor,

by withdrawing the same, or any part thereof, and substituting other deposits therefor; upon proof of the final payment of the liability for which such deposit was made, any deposit remaining shall be returned to the depositor. All earnings made by such deposit shall be first applied upon any liability of the depositors and if no such liability exists, then such earnings shall upon demand be delivered to such depositor. The Treasurer of the Board and his bondsmen shall be liable for the value and safe-keeping of such deposit, and shall at any time, upon demand of his bondsmen, the depositor, or the Board, account for the same and the earnings thereof.

PART IV.

COMPENSATION PLAN NUMBER THREE.

Section 40 (a). Every employer, subject to the provisions of Compensation Plan Number Three, shall, in the manner and at the time herein specified, pay into the State Treasury, in accordance with the following schedule, a sum equal to the percentage of his total annual pay-roll specified in this section; which said schedule is subdivided into classes, and the percentage of payments of premiums or assessments to be required from each of said classes is as follows:

CLASS ONE—Broom or brush manufacturing, without sawmill; theatre stage employees; moving picture operators; electrotyping; engraving; lithographing; photo engraving; stereotyping; embossing; bookbinding; printing; jewelry manufacturing; not otherwise specified; SIXTY-FIVE ONE HUNDREDTHS OF ONE PER CENTUM.

Note—In accordance with the authority conferred by Section 5 and Section 40 (c) of the Act, the Board at the end of the second year's operation of the Law, rearranged and added to CLASS ONE, making it read as follows:

"CLASS ONE—Broom or brush manufacturing without sawmill; theatre stage employees; moving picture operators; electrotyping; engraving; lithographing; photo engraving; stereotyping; embossing; bookbinding; printing; jewelry manufacturing; not otherwise specified; hotel employees; restaurant employees; store and office employees, including stenographers, cashiers and bookkeepers; nurses and hospital employees; including all operations where the business of the employer is, as to the major portion thereof, non-hazardous, but who has one or more employees in a hazardous occupation, thus disqualifying such employer for admission under Class Twenty-Seven."

CLASS TWO—Cloth, textile, and wool manufacturing, not otherwise specified; wharf employees, other than stevedores and longshoremen; EIGHT-TENTHS OF ONE PER CENTUM.

Note—In accordance with the authority conferred by Section 5 and Section 40 (c) of the Act, the Board at the end of the second year's operation of the Law, rearranged and added to CLASS TWO, making it read as follows:

"CLASS TWO—Cloth, textile, and wool manufacturing, not otherwise specified; wharf employees, other than stevedores and longshoremen; ice cream manufacturers; steam bakeries; employees general merchandise dealers; implement dealers; hardware dealers; garages without power; lumber yards without power driven saws or machinery; coal and wood yards without power; EIGHT-TENTHS OF ONE PER CENTUM."

CLASS THREE—Manufacturing alcohol, drugs, other than ammonia; candy, crackers, saddles, harness, leather novelties, mattresses, not including spring or wire, paint, varnish, wagons, buggies, carriages, sleighs, cutters; operation of tugs and steamboats; manufacturing roofing paper and articles of paper not otherwise specified, paper boxes, automobiles, motor trucks, hardware; working in rubber, not otherwise specified; manufacturing boots and shoes; manufacturing articles of and working in leather not otherwise specified; **ONE AND THREE-TENTHS PER CENTUM.**

Note—In accordance with the authority conferred by Section 5 and Section 40 (c) of the Act, the Board at the end of the second year's operation of the Law, rearranged and added to **CLASS THREE**, making it read as follows:

"**CLASS THREE**—Manufacturing alcohol, drugs, other than ammonia; candy, crackers, saddles, harness, leather novelties, mattresses, not including spring or wire, paint, varnish, wagons, buggies, carriages, sleighs, cutters; operation of tugs and steamboats; manufacturing roofing paper and articles of paper not otherwise specified, paper boxes, automobiles, motor trucks, hardware; working in rubber, not otherwise specified; manufacturing boots and shoes; manufacturing articles of and working in leather not otherwise specified; butcher shops without slaughtering; garages with power; teaming, draying, trucking and transferring; **ONE AND THREE-TENTHS PER CENTUM.**"

CLASS FOUR—Manufacturing cheese, condensed milk; operating creameries, manufacturing spices and condiments; paper hanging; kalsomining; whitewashing; making willow baskets; setting tiles; mantles and marble work, inside work only; making grease, lard, soap, tallow; inside plumbing work; installing heating systems; painting and decorating, inside work only; metal ceiling work; **ONE AND FOUR-TENTHS PER CENTUM.**

CLASS FIVE—Manufacturing glass; operating breweries, bottling works, grain warehouses, grain elevators; manufacturing articles of brass, copper, lead and zinc; operating machine shops, not otherwise specified; lathing, plastering; canneries of meat, fruit, vegetables, or fish, not including can manufacturing; cutting stone or paving blocks, other than in quarries, with or without machinery; installing electrical apparatus inside; installing fire alarm apparatus inside; covering boilers or steam pipes; concrete laying in floors, street paving or sidewalks, not otherwise specified; laying asphalt and other paving not otherwise specified; including shop and yard; manufacturing canoes and row boats; well drilling; constructing and repairing of paving of bricks or blocks; **ONE AND FIVE-TENTHS PER CENTUM.**

Note—In accordance with the authority conferred by Section 5 and Section 40 (c) of the Act, the Board at the end of the second year's operation of the Law, rearranged and added to **CLASS FIVE**, making it read as follows:

"**CLASS FIVE**—Manufacturing glass; operating breweries; bottling works; manufacturing articles of brass, copper, lead and zinc; operating machine shops, not otherwise specified; lathing, plastering; canneries of meat, fruit, vegetables, or fish, not including can manufacturing; cutting stone or paving blocks, other than in quarries, with or without machinery; installing electrical apparatus inside; covering boilers or steam pipes; concrete laying in floors, street paving or sidewalks, not otherwise specified; laying asphalt and other paving not otherwise specified; including shop and yard; manufacturing canoes

and row-boats; well drilling; constructing and repairing of paving of bricks or blocks; lumber yards with power driven machinery; coal yards, wood yards and coal docks with power driven saws or machinery; blacksmith shops; ONE AND FIVE-TENTHS PER CENTUM."

CLASS SIX—Operating of laundries with power, dying, bleaching, and cleaning works; manufacturing of furniture, show-cases, office and store furniture and fixtures; cabinet making; manufacture of wire mattresses, bed springs, wooden coffins, caskets, rough wooden boxes for coffins; building hot houses, working in food stuffs, fruits, edible oils or vegetables, not otherwise classified; operating flour mills, chop mills, feed mills; ONE AND SIX-TENTHS PER CENTUM.

Note—In accordance with the authority conferred by Section 5 and Section 40 (c) of the Act, the Board at the end of the second year's operation of the Law, rearranged and added to CLASS SIX, making it read as follows:

"CLASS SIX—Operating of laundries with power, dying, bleaching, and cleaning works; manufacture of wire mattresses, bed springs, wooden coffins, caskets, rough wooden boxes for coffins; building hot houses, working in food stuffs, fruits, edible oils or vegetables, not otherwise classified; ONE AND SIX-TENTHS PER CENTUM."

CLASS SEVEN—Manufacturing wood fibre ware; installing automatic sprinklers or ventilating systems; setting glass; erecting fire-proof doors and shutters inside of buildings; operating tanneries, sugar factories; beveling glass; manufacturing peat fuel; building wooden stairs; manufacturing brick, including kilns and buildings and diggings in pits, brickettes; brooms with sawmills, earthenware, fire clay, porcelain ware, pottery, tile, terra cotta; brush making with sawmills; ONE AND EIGHT-TENTHS PER CENTUM.

CLASS EIGHT—Manufacturing of ammonia; operating water works, gas works; grading, either of streets or otherwise, or road making, without blasting; construction of plank road, plank street or plank sidewalk; operating creosoting works; pile treating works; treating ties or other timber products; plumbing, both at and away from the shop, including house connections, without blasting; construction of water works, gas works and coke ovens, including laying of mains and connections, without blasting; ONE AND NINE-TENTHS PER CENTUM.

Note—In accordance with the authority conferred by Section 5 and Section 40 (c) of the Act, the Board at the end of the second year's operation of the Law, rearranged and added to CLASS EIGHT, making it read as follows:

"CLASS EIGHT—Manufacturing of ammonia; operating water works, gas works; grading, either of streets or otherwise, or road making, without blasting; construction of plank road, plank street or plank sidewalk; operating creosoting works; pile treating works; treating ties or other timber products; plumbing, both at and away from the shop, including house connections, without blasting; construction of water works, gas works and coke ovens, including laying of mains and connections, without blasting; grain warehouses, grain elevators; manufacturing of furniture, show cases, office and store furniture and fixtures; cabinet making; operating flour mills; chop mills, feed mills; ONE AND NINE-TENTHS PER CENTUM."

CLASS NINE—Manufacturing artificial ice; operating refrigerator plants, cold storage plants, foundries, packing houses, including slaughtering; manufacturing agricultural implements, threshing ma-

chinery, traction engines, harvesting machinery; manufacturing asphalt; operating steam heating and power plants; manufacturing gas or gasoline engines; operating ferries; stone crushing; not at quarries; boat or ship building, other than canoes or row-boats, without scaffolds; laying hot flooring compositions, not otherwise specified; operating stock yards; TWO PER CENTUM.

Note—In accordance with the authority conferred by Section 5 and Section 40 (c) of the Act, the Board at the end of the second year's operation of the Law, rearranged and added to CLASS NINE, making it read as follows:

"CLASS NINE—Manufacturing artificial ice; operating refrigerator plants, cold storage plants, foundries, packing houses, including slaughtering; manufacturing agricultural implements, threshing machinery, traction engines, harvesting machinery; manufacturing asphalt; operating steam heating and power plants; manufacturing gas or gasoline engines; operating ferries; stone crushing; not at quarries; boat or ship building, other than canoes or row-boats, without scaffolds; laying hot flooring compositions, not otherwise specified; operating stock yards; butcher shops with slaughtering; janitors; TWO PER CENTUM."

CLASS TEN—Operating paper mills, pulp mills, longshoring, stevedoring, manufacturing fertilizers; operating garbage works; incinerators, crematories, lime kilns or burners, no quarrying; installing boilers, steam engines, dynamos, machinery not otherwise specified; putting up belts for machinery; manufacturing barrels, kegs, pails, staves, tubs, excelsior, veneer, packing cases, sash doors and blinds; operation and maintenance of interurban railways, without third rail; TWO AND TWO TENTHS PER CENTUM.

CLASS ELEVEN—Millwrighting, not otherwise specified; manufacturing building material, not otherwise specified; working in building material, not otherwise specified; TWO AND ONE-QUARTER PER CENTUM.

CLASS TWELVE—Operation of smelters; manufacturing of metallic coffins; manufacturing of iron and steel; boat or ship rigging; planing mills, independent; cement manufacturing; operating blast furnaces; TWO AND THREE-TENTHS PER CENTUM.

CLASS THIRTEEN—Street or road making, with blasting; manufacturing wood baskets, kindling wood, window and door screens, cordage and rope; manufacturing and refining oil; placing wires in conduits; TWO AND FOUR-TENTHS PER CENTUM.

CLASS FOURTEEN—Concentrating and amalgamating of ores; wood working, not otherwise specified; operating gravel bunkers; hauling gravel; operating gravel pits; operating wood saws; painting, exterior work; operating boiler works; making steam shovels; boilers; shipwrighting; operating sawmills, lath mills; bridge work factories; operation of and work in mines, other than coal; TWO AND FIVE-TENTHS PER CENTUM.

Note—In accordance with the authority conferred by Section 5 and Section 40 (c) of the Act, the Board at the end of the second year's operation of the Law, rearranged and added to CLASS FOURTEEN, making it read as follows:

"CLASS FOURTEEN—Concentrating and amalgamating of ores; wood working, not otherwise specified; operating gravel bunkers; hauling gravel; operating gravel pits; operating wood saws; painting, exterior work; operating boiler works; making steam shovels; boilers; shipwrighting; operating sawmills, lath mills; bridge works factories; threshing and plowing outfits operated for hire; sheep shearing outfits operated for hire; TWO AND FIVE-TENTHS PER CENTUM."

CLASS FIFTEEN—Operating rolling mills; manufacturing tanks, not otherwise specified; erecting and repairing advertising signs; harvesting and storing of ice, including loading on cars; making and repairing of locomotives and railroad cars; cutting stone at stone yards connected with quarries; boat or ship building with scaffolds; logging operations, with or without machinery; booming or driving logs, ties, or other timber products; operating shingle mills; operating quarries; TWO AND THREE-QUARTERS PER CENTUM.

CLASS SIXTEEN—Operating dredges; construction of telephone and telegraph systems; construction of dams and reservoirs, electric light and power plants, water works and water systems; installing furnaces; constructing blast furnaces; sewer building, maximum depth of excavation at any point seven feet; operation and maintenance of steam railways, including logging, railways; operating coal mines; THREE PER CENTUM.

Note—In accordance with the authority conferred by Section 5 and Section 40 (c) of the Act, the Board at the end of the second year's operation of the Law, rearranged and added to CLASS SIXTEEN, making it read as follows:

"CLASS SIXTEEN—Operating dredges; construction of telephone and telegraph systems; construction of dams and reservoirs, electric light and power plants, water works and water systems; installing furnaces; constructing blast furnaces; sewer building, maximum depth of excavation at any point seven feet; operation and maintenance of steam railways, including logging railways; THREE PER CENTUM."

CLASS SEVENTEEN—Operating dry docks, including floating dry docks; ornamental metal work within buildings; electric railway construction, without rock work or blasting; railroad construction, including street and cable railways, without rock work or blasting; building canals, without rock work or blasting; installing freight or passenger elevators; operation of telephone and telegraph systems; making dredges; constructing dry docks; THREE AND ONE-QUARTER PER CENTUM.

Note—In accordance with the authority conferred by Section 5 and Section 40 (c) of the Act, the Board at the end of the second year's operation of the Law, rearranged and added to CLASS SEVENTEEN, making it read as follows:

"CLASS SEVENTEEN—Operating dry docks, including floating dry docks; ornamental metal work within buildings; electric railway construction, without rock work or blasting; railroad construction, including street and cable railways, without rock work or blasting; building canals, without rock work or blasting; installing freight or passenger elevators; operation of telephone and telegraph systems; making dredges; constructing dry docks; carpenters not otherwise specified; constructing grain elevators, not metal framed; stump pulling with donkey engines; operation and maintenance of electric railways using third rail, and street railways, all systems, including

electric and cable; operating and maintenance of electric light and power plants, including transmission systems and extension of lines; electric systems, not otherwise specified; THREE AND ONE-QUARTER PER CENTUM."

CLASS EIGHTEEN—Carpenters, not otherwise specified; constructing grain elevators, not metal framed; stump pulling with donkey engines; steam, electric and cable railway construction, with rock work or blasting; construction of logging railways, with rock work or blasting; operation and maintenance of electric railways using third rail, and street railways, all systems, including electric and cable; operation and maintenance of electric light and power plants, including transmission systems and extensions of lines; electric systems, not otherwise specified; THREE AND ONE-HALF PER CENTUM.

Note—In accordance with the authority conferred by Section 5 and Section 40 (c) of the Act, the Board at the end of the second year's operation of the Law, rearranged and added to CLASS EIGHTEEN, making it read as follows:

"CLASS EIGHTEEN—Operation of and work in mines, including coal and quartz mines; THREE AND ONE-HALF PER CENTUM."

CLASS NINETEEN—Pile driving; clearing land with blasting; galvanized iron or tin works; marble work; fibre proofing of buildings, by means of wire netting and concreting; cellar excavation, with or without blasting; THREE AND THREE-QUARTERS PER CENTUM.

Note—In accordance with the authority conferred by Section 5 and Section 40 (c) of the Act, the Board at the end of the second year's operation of the Law, rearranged and added to CLASS NINETEEN, making it read as follows:

"CLASS NINETEEN—Pile driving; clearing land with blasting; galvanized iron or tin works; marble work; fibre proofing of buildings, by means of wire netting and concreting; cellar excavation, with or without blasting; steam, electric and cable railway construction, with rock work or blasting; construction of logging railways, with rock work or blasting; THREE AND THREE-QUARTERS PER CENTUM."

CLASS TWENTY—Constructing breakwaters, marine railways and jetties; installation and repair of electrical apparatus, not otherwise specified, outside work only; stamping of metal or tin; building trestles and tunnels other than mining; shaft sinking, not otherwise specified; FOUR PER CENTUM.

CLASS TWENTY-ONE—Moving safes, boilers, machinery; construction of tanks, water-towers, windmills, not metal frame; plumbers making house connections with blasting; roof work; slate work; stone work; stone setting; brick work construction, not otherwise specified; construction of canals, with rock work or blasting; bridge building, wooden; construction of floating docks; constructing chimneys of metal or concrete; FOUR AND ONE-HALF PER CENTUM.

CLASS TWENTY-TWO—Excavations, not otherwise specified; laying of mains and connections, with blasting; sewer building, where maximum depth of excavation at any point exceeds seven feet; blasting, not otherwise specified; manufacturing fire works; FIVE PER CENTUM.

CLASS TWENTY-THREE—Erecting fire escapes, fireproof doors and shutters outside of building; building concrete structures, not otherwise specified; concrete or cement work not otherwise specified; **SIX PER CENTUM.**

Note—In accordance with the authority conferred by Section 5 and Section 40 (c) of the Act, the Board at the end of the second year's operation of the Law, rearranged and added to **CLASS TWENTY-THREE**, making it read as follows:

"**CLASS TWENTY-THREE**—Erecting fire escapes, fire-proof doors and shutters outside of building; building concrete structures, not otherwise specified; concrete or cement work not otherwise specified; firemen, employees of public fire departments; **SIX PER CENTUM.**"

CLASS TWENTY-FOUR—Constructing iron or steel frame structures or parts; constructing and repairing steel frames and structures; sub-aqueous work; caisson works; **SIX AND ONE-HALF PER CENTUM.**

CLASS TWENTY-FIVE—House moving, house wrecking; construction or repair of steeples; construction of brick chimneys; **SIX AND THREE-QUARTERS PER CENTUM.**

CLASS TWENTY-SIX—Manufacturing powder, dynamite and other explosives, not otherwise specified; **TEN PER CENTUM.**

CLASS TWENTY-SEVEN—Any employer and his employees engaged in non-hazardous work or employment by their joint election, filed with and approved by the Board, may accept the provisions of Compensation Plan Number Three. In such event, such employer and employees shall be known as Class Twenty-seven, the rate of assessment in which shall be **ONE-HALF OF ONE PER CENTUM.**

Section 40 (b). If a single establishment or work comprises several occupations listed in Section 40 (a) in different classifications, the assessment shall be computed according to the pay-roll of each occupation if clearly separable; otherwise an average rate of assessment shall be charged for the entire establishment, taking into consideration the number of employees and the relative hazards.

Section 40 (c). The classification of hazardous occupations Section 40 (a) and the rates of premium or assessment therein fixed are advisory only, and the Board is hereby given full power and authority to rearrange, revise, add to, take from, change, modify, increase, or decrease any classification or rate named in Section 40 (a) as in its judgment or experience may be necessary or expedient; provided, that no change in the classification or rates prescribed in Section 40 (a) shall be made effective prior to the end of the first fiscal year, and thereafter any changes so made shall not become effective until thirty days after the date of the order or decision of the Board making such change except that in case of new industries, or industries not enumerated in Section 40 (a), the Board shall have the right to make an immediate classification thereof and establish a rate therefor.

Section 40 (d). It is the intent and purpose of Compensation Plan Number Three that each industry, trade, occupation, or employment

coming under the provisions of said plan shall be liable and pay for all injuries happening to employees coming under the provisions of said plan, and that all funds collected by assessments as herein provided shall be paid into one common fund to be known as the Industrial Accident Fund, which fund shall be devoted exclusively to the payment of all valid claims for injuries happening in each industry, trade, occupation, or employment coming under the provisions of Compensation Plan Number Three; Provided that accounts shall be kept with each industry, trade, occupation or employment in according with the foregoing classifications, or otherwise, as the Board may direct, both as to receipts and disbursements, for the purpose of providing information and statistics necessary for determining any changes in such rates or classifications.

Section 40 (e). There shall be collected from all classes as initial payment into the Industrial Accident Fund, on or before the fifteenth day of July, 1915, one-fourth of the premium of assessment for that fiscal year and one-twelfth thereof at the first of each month beginning with October first, 1915; provided, that if such fund shall have a sufficient balance on hand at the end of the first three months, or any month thereafter, to meet the requirements of the Industrial Accident Fund, no assessment shall be called for such month.

Section 40 (f). The first payment shall be collected upon the pay-roll of the months of April, May and June, 1915. At the end of each calendar year an adjustment of the account shall be made upon the basis of the actual pay-roll. Any shortage shall be made good within thirty days thereafter. Every employer who shall enter into business at any intermediate day shall make his payments in the same manner and upon the same basis before commencing operations; the amount of such payments shall be calculated upon his estimated pay-roll, and an adjustment shall be made on or before February first in the year following, in the manner above provided.

Section 40 (g). Any employer who is in default in the observance of any order of the Board, issued pursuant to the provisions of Section 40 (a) to 40 (f) inclusive, shall, in addition to any other penalty provided by this Act, be charged an advance of twenty-five per centum over the established rate, and such advanced rate shall continue and be in force until such employer shall have ceased to be in such default.

Section 40 (h). Any change in classification of risks or premium rates, or any change caused by change in the class of work, occurring during the calendar year, shall be equalized by the Board within thirty days after the end of such year in proportion to its duration in accordance with the schedules provided in this Act.

Section 40 (i). If, at the end of any year, it shall be seen that the contribution to the Industrial Accident Fund by any class of industry shall be less than the drain upon such fund on account of that class, the deficiency shall be made good to the fund on the first day of February of the following year by the employers of that class in proportion to their respective payments for the previous year.

Section 40 (j). Upon the happening of an accident where death, or the nature of the injury renders the amounts of future payments certain or reasonably certain, the Board shall forthwith cause the Treasurer of the Board to set apart out of the Industrial Accident Fund a sum of money, to be calculated on the basis of the maximum sum required to pay the compensation accruing on account of such injury, which will meet such required payments not exceeding, however, the sum of Four Thousand Dollars for any one case.

Section 40 (k). The Treasurer of the Board shall invest such reserve in bonds of the United States, bonds of the State of Montana, or bonds of any county, city or school district in the State of Montana, or any other security which may be approved by said Board, and out of the same and its earnings shall be paid the monthly installments, and any lump sum then or thereafter arranged for the case. Any deficiency shall be made good out of, and any balance or overplus shall revert to the Industrial Accident Fund.

Section 40 (l). The Treasurer of the Board shall keep an accurate account of all such segregations of the Industrial Accident Fund, and upon direction of the Board shall divert from the main fund any sums necessary to meet monthly payments, pending the conversion into cash of any security, and in such case shall repay the same out of the cash realized from the security.

Section 40 (m). If any employer shall default in any payment to the Industrial Accident Fund, the sum due may be collected by an action at law in the name of the State, and such right of action shall be cumulative.

Section 40 (n). For any injury happening to any of his workmen during default in any payment to the Industrial Accident Fund, the defaulting employer as to such injury shall be considered as having elected not to come under the provisions of this Act, except that he shall be and remain liable to pay to the Industrial Accident Fund the amount of such default, together with the penalty prescribed by Section 40 (g).

Section 40 (o). The person entitled to sue under the provisions of Section 40 (n) shall have the option of proceeding by suit or taking under this Act. If such person take under this Act, the cause of action against the employer shall be assigned to the State for the benefit of the Industrial Accident Fund. If such person shall elect to proceed against the defaulting employer, such election shall constitute a waiver of any right to compensation under the provisions of this Act.

Section 40 (p). Any cause of action assigned to the State under the preceding section may be prosecuted or compromised by the Board in its discretion.

Section 40 (q). Where a workman is entitled to compensation under Compensation Plan Number Three, he shall file with the Board his application therefor, together with the certificate of the physician

who attended him, and it shall be the duty of such physician to lend all necessary assistance in making application for compensation and such proof of other matters as may be required by the rules of the Board without charge to the workman.

Section 40 (r). For a proper compliance with the provisions of the preceding section, the physician, after approval by the Board, shall be paid out of the Industrial Administration Fund One and One-half Dollars for each case.

Section 40 (s). Where death results from the injury, the parties entitled to compensation under Compensation Plan Number Three, or someone in their behalf, shall make application for the same to the Board. The application must be accompanied with proof of death and proof of relationship, showing the parties entitled to compensation, certificate of the attending physician, if any, and such other proof as may be required by the rules of the Board.

Section 40 (t). In computing the pay-roll, the entire compensation received by every workman employed in the hazardous occupations enumerated in this Act, shall be included, whether it be in the form of salary, wages, piece-work, overtime, or any allowance in the way of profit-sharing premium, or otherwise, and whether payable in money, board or otherwise.

Section 40 (u). Disbursements out of the Industrial Accident Fund shall be made by the Treasurer of the Board as the Board may order. If at any time there shall not be sufficient money in the Accident Fund with which to pay any warrants drawn thereon, the employer, on account of whose workmen the warrant was drawn, shall pay the same, and upon his next contribution to such fund he shall be credited with the amount so paid with interest thereon at the rate of six per centum per annum from the date of such payment to the date upon which the next assessment becomes payable, and if the amount of the credit exceeds the amount of such assessment, he shall have a warrant upon such fund for the excess, and if said warrant be not paid for want of funds, it shall be credited to such employer and be applied upon succeeding assessments.

Section 40 (v). All earnings made by the Industrial Accident Fund by reason of interest paid for the deposit thereof, or otherwise, shall be credited to and become a part of said fund, and the making of profit, either directly or indirectly, by the Treasurer of the Board, or any other person, out of the use of the Accident Fund shall constitute a felony, and on conviction thereof shall subject the person making such profit to imprisonment in the State Penitentiary for a term not exceeding two years, or a fine not exceeding Five Thousand Dollars, or both such fine and imprisonment, and the Treasurer of the Board shall be liable upon his official bond for all profits realized for any unlawful use of the said fund.

PART V.
SAFETY PROVISIONS.

Section 50 (a). No employer shall construct, maintain, or operate, or cause to be constructed, maintained, or operated any place of employment that is not safe.

Section 50 (b). No employee shall remove, displace, damage, destroy, or carry off any safety device or safeguard furnished and provided for use in any employment or place of employment, or interfere in any way with the use thereof by any other person, or interfere with the use of any method or process adopted for protection of any employee in such employment or place of employment, or fail or neglect to do anything reasonably necessary to protect the life and safety of himself and other employees.

Section 50 (c). The Board is vested with full power and jurisdiction over and shall have such supervision of every employment and place of employment in this State as may be necessary adequately to enforce and administer all laws and all lawful orders requiring such employment and place of employment to be safe and requiring the protection of the life and safety of every employee in such employment or place of employment.

Section 50 (d). The Board shall have power, in addition to other powers herein granted, by general or special orders, rules or regulations, or otherwise:

1. To declare and prescribe what safety devices, safeguards, or other means or methods of protection as are well adapted to render employees and places of employment safe.

2. To fix such reasonable standards and to prescribe, modify, and enforce such reasonable orders for the adoption, installation, use, maintenance, and operation of safety devices, safeguards, and other means and methods of protection, as may be necessary for the protection of the life and safety of employees.

3. To fix and order such reasonable standards for the construction, repair and maintenance of places of employment as shall render them safe.

4. To require the performance of any act necessary for the protection of life and safety of employees.

5. To declare and prescribe the general form of industrial accident reports, the accidents to be reported and the information to be furnished in connection therewith, and the time within which such reports shall be filed. Nothing in this Act contained shall be construed to prevent the Board from requiring supplemental accident reports; provided, however, that where, by the laws of the State of Montana, the manner or method of carrying on any business, or the rules or regulations in relation thereto, or the character or kind of safety devices has been prescribed, no other or additional require-

ments shall be made by the Board, but it shall be the duty of the Board to see that the employer lives up to and obeys said laws.

Section 50 (e). Upon the fixing of a time and place for the holding of a hearing for the purpose of considering and issuing a general safety order or orders, the Board shall cause a notice of such hearing to be published in one or more daily newspapers of general circulation, published and circulated in the State. No defect or inaccuracy in such notice, or in the publication thereof shall invalidate any general order issued by the Board after a hearing has been had.

Section 51 (a). After July 1, 1915, every place of employment of a work or occupation defined by Sections 4 (a), 4 (b), 4 (c), 4 (d), 4 (e), and 5 of this Act to be hazardous, shall be inspected, at least once during each year, by an inspector or examiner appointed by the Board. Such inspection shall be for the purpose of determining the condition and operation of such places of employment, as regards the safety of employees working therein, and the use of safeguards, safety appliances, and reasonably safe tools and appliances.

Section 51 (b). A report of such inspection shall be filed in the office of the Board and a copy thereof given the employer.

Section 51 (c). Each place of employment inspected as provided in Section 51 (a) and found in a satisfactory condition shall receive from the Board, upon payment of the inspection fees hereinafter provided for, a certificate to that effect, which certificate must be prominently displayed, under glass, in one of the principal places of the establishment so inspected.

Section 51 (d). If, after such inspection and report, thereof, to the Board, it shall be found that any such place of employment is not constructed, maintained or operated as provided in this Act, the Board shall order the installation, use, maintenance and operation, within such reasonable time as the Board may direct, of such safety devices, safeguards, and other means and methods of protection as may be necessary to reasonably insure the safety of the workmen employed therein, subject to the provisions of Section 51 (e).

Section 51 (e). If after such inspection, the Board or any inspector or examiner thereof, shall find such place of employment in such an unsafe condition as to constitute an immediate menace to the safety of the workmen employed therein, the Board, or any inspector or examiner thereof, may order any such place of employment closed, or the work therein to cease, until such safety devices, safeguards, and other means and methods, or changes or removals, as may be ordered by the Board, or any inspector or examiner thereof, shall have been installed, repaired, changed, or removed, and such place of employment put in such condition as will reasonably insure the safety of the workmen employed therein.

Section 52 (a). For each annual inspection made under the provisions of this section, the employer shall pay, at the time of such

inspection, a fee of five cents for each one thousand dollars or fraction thereof of his annual pay-roll for the preceding year; provided, that no inspection fee under this section shall be less than Five Dollars.

Section 52 (b). The fees for any subsequent or re-inspection made during any year in which an annual inspection shall have been made, shall be:

Where the annual pay-roll for the preceding year shall have been not more than Twenty-five Thousand (\$25,000.00) Dollars, Five (\$5.00) Dollars.

Where the annual pay-roll for the preceding year shall have been more than Twenty-five Thousand (\$25,000.00) Dollars but not more than One Hundred Thousand (\$100,000.00) Dollars, Ten (\$10.00) Dollars.

Where the annual pay-roll for the preceding year shall have been more than One Hundred Thousand (\$100,000.00) Dollars but not more than Five Hundred Thousand (\$500,000.00) Dollars, Twenty (\$20.00) Dollars.

Where the annual pay-roll for the preceding year shall have been more than Five Hundred Thousand (\$500,000.00) Dollars but not more than One Million (\$1,000,000.00) Dollars, Forty (\$40.00) Dollars.

Where the annual pay-roll for the preceding year shall have been more than One Million (\$1,000,000.00) Dollars, Fifty (\$50.00) Dollars.

Section 52 (c). All fees received by the Board for inspection, or for subsequent or re-inspection, and all fines imposed or collected for a violation of the safety provisions of this Act shall be paid monthly to the State Treasurer who shall credit such payments to the Industrial Administration Fund.

Section 53 (a). Whenever the Board shall find, that any employment or place of employment is not safe, or that the practice or means or methods of operation or processes employed or used in connection therewith are unsafe, or do not afford adequate protection to the life and safety of employees in such employments and places of employment, the Board shall make and enter and serve such order relative thereto as may be necessary to render such employment or place of employment safe and protect the life and safety of employees in such employments and places of employment, and may in said order direct that such additions, repairs, improvements or changes be made; and such safety devices, and safeguards be furnished, provided and used as are reasonably required to render such employment or places of employment safe, in the manner and within the time specified in such order.

Section 53 (b). The Board may, upon application of any employer or other person affected thereby, grant such time as may reasonably be necessary for compliance with any order, and any person affected by such order may petition the Board for an extension of time, which the Board shall grant if it finds such an extension of time necessary.

Section 53 (c). Whenever the Board shall learn, or have reason to believe that any employment or place of employment is not safe or is injurious to the welfare of any employee, it may summarily investigate the same, with or without notice or hearings, and enter and serve such order as may be necessary relative thereto.

Section 53 (d). Every employer, employee and other person shall obey and comply with each and every requirement of every order, decision, direction, rule or regulation made or prescribed by the Board, and shall do everything necessary or proper in order to secure compliance with and observance of every such order, decision, rule or regulation.

Section 53 (e). Nothing contained in this Act shall be construed to deprive any other public corporation, board or department of any power or jurisdiction over or relative to any place of employment; provided, that whenever the Board shall, by order, fix a standard of safety for employments or places of employment, such order shall, upon the filing by the Board of a copy thereof with the secretary or clerk of any such public corporation to which, or within whose jurisdiction it may apply, establish a minimum requirement concerning the matters covered by such order and shall be construed in connection with any local order relative to the same matter and to amend or modify any requirement in any local order not up to the standard of the order of the Board.

Section 53 (f). Every order of the Board, general or special, its rules or regulations, findings or decisions shall be admissible in evidence in any prosecution for, or suit to prevent, the violation of any of the provisions of this Act, and shall be presumed to be reasonable. This presumption is, however, a rebuttable presumption.

Section 53 (g). The Board may investigate the cause of all industrial accidents occurring in any employment or place of employment, or directly or indirectly arising from, or connected therewith, resulting in personal injury or death; and the Board shall have the power to make such orders or recommendations with respect to such accidents as may be just and reasonable, provided that neither the order nor the recommendation of the Board, nor any accident report filed with the Board, shall be admitted as evidence in an action for damages, or any proceeding to recover compensation, based on or arising out of such injury or death.

Section 53 (h). If, by reason of poor or careless management, or otherwise, any place of employment be unduly dangerous, in comparison with other like places of employment, and the employer operating the same shall not have complied with the safety provisions of this Act, and such employer shall be under Compensation Plan Number Three, the Board, in addition to any other penalty provided by this Act, shall advance the rate upon such place of employment fifty per centum, and such advanced rate shall continue and be in force until such place of employment shall have ceased to

be unduly dangerous in comparison with other like places of employment, and such employer shall have obtained a certificate of the inspector or examiner provided for herein.

Section 54. Every employer, employee, or other person, who either individually or acting as an officer, agent or employee of a corporation, or other person, violates any safety provisions contained in this Act, or any part of any such provision, or who shall fail or refuse to comply with any such provision or any part thereof or who directly or indirectly, knowingly induces another so to do, is guilty of a misdemeanor.

Section 55 (a). Whenever in this Act the inspection of mines is referred to, such inspection shall be made by the Inspector of Mines, or his deputy and nothing in this Act contained shall be construed as modifying or limiting in any way the duties required to be performed by the Inspector of Mines as may be otherwise provided by law; provided, however, that the Inspector of Mines shall collect and account for the fees herein prescribed for inspection or subsequent or re-inspection.

No rule, regulation or requirement relating to the operation of mines within the State of Montana made by said Board shall be lawful or valid unless the same shall be concurred in and approved by the State Mine Inspector, and shall have been within the power of the said State Mine Inspector, to make in the first instance.

Section 55 (b). A copy of any order, direction or requirement of the Inspector of Mines shall be filed with the Board and shall thereupon become and have all the force and effect of an order of the Board, subject only to review by the court, as in this Act provided.

Section 56. All Acts and parts of Acts in conflict herewith are hereby repealed.

Section 57. This Act shall be in full force and effect from and after its passage and approval.

Approved March 8, 1915.

MINING LAWS

OF THE

STATE OF MONTANA

COMPILED FROM

THE REVISED CODES OF 1907

AND

SESSION LAWS OF 1909, 1911,
1913, 1915, 1917, 1919.

Compiled in the Office of the Industrial Accident Board
BUREAU OF SAFETY INSPECTION

W. B. OREM, Quartz Mine Inspector,

GEO. N. GRIFFIN, Coal Mine Inspector.

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DIVISION I.
LAWS RELATING TO METALLIFEROUS MINES.

Chapter 1.

Inspector of Mines.

(Revised Codes, Part III, Title VII, Chapter II.)

Article III.

Section 1713. Duties of Inspector—Annual Inspection.

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Section 1713. Duties of Mine Inspector—Annual Inspection. It is the duty of the Inspector of Mines by himself or deputy to visit every mine in the State, once every year and inspect its workings, timbering, ventilation, means of ingress and egress, and the means adopted and in use for the preservation of the lives and safety of the miners employed therein. For this purpose the inspector and his deputy at all times shall have access to any mine and all parts thereof. All mine owners, lessees, operators or superintendents must render such assistance as may be necessary to enable the inspector or his deputy to make the examination. When upon such inspection any mine or portion thereof is found to be in an unsafe condition, the inspector shall at once serve a notice in writing upon the owner, lessor, lessee, agent, manager or superintendent thereof setting forth the nature of the defects which render such mine unsafe and the point or place in such mine where such defects exist, and requiring the repairs necessary to remedy such defects to be made within a specified time, and, if in his judgment the circumstances so require, he shall forbid the operation of such mine or portion thereof as has been declared unsafe, save and except for the purpose of making the repairs necessary for the purpose of remedying such defects and making such mine safe for the laborers employed therein.

Section 1714. Duty to Inspect Mines Upon Complaint. Whenever the Inspector of Mines receives a complaint in writing signed by one or more parties setting forth that the mine which he or they are working is dangerous in any respect, he or the deputy inspector must in person visit and examine such mine. Every complaint must set forth the nature of the danger existing at the mine and the time the cause of such danger was first observed.

Section 1715. Notice to Owner of Defects. After such complaint has been received by the Inspector of Mines, he must, as soon as pos-

sible, visit such mine and if from such examination he ascertains that the mine is from any cause in a dangerous condition, he must at once notify the owner, lessor, or agent thereof, such notice to be in writing and to be served by copy on such owner, lessor, lessee or agent, in the same manner as provided by law for the serving of legal process, and the notice must state fully and in detail in what particular manner such mine is dangerous or insecure, and require all necessary changes to be made without delay, for the purpose of making such mine safe for the laborers employed therein; and in any criminal or civil procedure at law against the party or parties so notified, on account of loss of life or bodily injury sustained by an employee subsequent to such notice and in consequence of a neglect to obey the inspector's requirements, a certified copy of the notice served by the inspector is prima facie evidence of the gross negligence of the party or parties so complained of. If the owner, lessor, lessee, or agent of any such mine shall neglect or refuse to obey or comply with the instructions of this inspector as contained in such notice, or shall neglect or refuse to cause the repairs necessary to remedy such defect to be made within a reasonable time, or shall refuse to cause work to be stopped when so ordered, such party or parties so refusing may be prosecuted criminally by the inspector.

Section 1716. Annual Inspection—Report. It is the duty of the Inspector of Mines, at least once in each year, to visit each mining county in the State, and examine as many of the mines in the different counties as practicable, and make such recommendations as in his judgment are necessary to insure the safety of the workmen employed therein, and whenever from his examination, he finds any mine to be in an unsafe condition, he shall at once serve a notice upon the owner, lessor, lessee, or agent thereof, and if such owner, lessor, lessee, or agent fails to comply with such notice, he may prosecute them or any of them as provided in the next preceding section.

Section 1717. Investigation After Accidents. Whenever a serious or fatal accident occurs in any mine it is the duty of the person in charge thereof to immediately notify the Inspector of Mines, and upon receiving such notice the inspector in person must at once repair to the place of accident, and investigate fully the cause of such accident, and whenever possible to do so, the inspector shall be present at the coroner's inquest held over the remains of the person or persons killed by such accident, and testify as to the cause thereof, and state whether, in his opinion, the accident was due to the negligence or mismanagement of the owner or person in charge. If the inspector can not be immediately present in case of a fatal or serious accident occurring, it is the duty of the owner or person in charge of the mine to have written statements made by those witnessing the same, and duly sworn to. In case no person was present at the time of the accident, then the verified statement of those first present after the accident must be taken, and such statement must be given to the inspector. If after making such investigation the inspector deems the facts warrant it,

he may prosecute criminally the owner, lessor, lessee, or agent of the mine in which such accident occurred.

Section 1718. Bond of Inspector. The Inspector of Mines must execute an official bond.

Section 1720. To What Mines Act Applicable. The provisions of the article do not apply to mines in which less than five men are employed. But all owners, lessors, lessees, agents or managers operating any metalliferous mine in this State in which five or more men are employed, shall report the same to the Inspector of Mines, state the name of the mine, the location of the same, the name of the company, person or persons owning or operating the same, postoffice address and number of men employed.

Section 1721. Penalties. All violations of the provisions of this article are provided for in the Penal Code, Section 8563.

Chapter 2.

Code of Signals in Metalliferous Mines.

Section 1724. Code of Signals in Mines.

1725. Penalties.

1726. Fines Paid Into School Fund.

Section 1724. Code of Signals in Mines. It is made the duty of the Inspector of Mines of Montana, and he is hereby required to prepare a complete code of signals for use in all mines in this State, worked through a shaft of 75 feet or more in depth, and employing ten or more men, and cause the same to be made known to each owner or operator of a mine in Montana by printed circular instructions to the end that a uniform code of mine signals may prevail. The said Inspector of Mines of Montana may add to or change such code of signals as circumstances may require, but no change of signals shall go into effect until a time specified by him, not less than sixty days nor more than ninety days from the time such change shall be ordered by him; provided, that the code of signals first prepared by him shall be used in all said shaft mines from and after June 1, 1895.

Section 1725. Penalty for Violation of Act. Any owner or operator of a mine who shall refuse or neglect to cause the signals provided for in Section 1724 of this Act to be used in his mine to the exclusion of all other signals, shall be deemed guilty of a misdemeanor and upon conviction of such refusal or neglect, shall be fined in a sum not less than one hundred dollars nor more than five hundred dollars, or by imprisonment in the county jail for a period of not less than thirty days nor more than ninety days in the discretion of the court, for each and every offense.

Section 1726. Fines Paid Into School Fund. All fines which may be collected under the provisions of this Act shall be paid into and form a portion of the public school fund in the county in which conviction takes place.

STATE CODE OF MINE SIGNALS.

Signal Bells.

1 bell hoist, 1 bell stop (if in motion.)

2 bells lower men, 3 bells hoist men.

4 bells blasting signal, engineer must answer by raising bucket a few feet and letting it back slowly.

Then 1 bell hoist men away from blast.

5 bells steam on, 6 bells steam off.

7 bells air on, 8 bells air off. 3-2-2 send down drills. 3-2-3 send down picks.

9 bells danger signal (case of fire or other danger), then ring number of station where danger exists. No person shall ring any bell except the station tender, except in case of danger, or when the main shaft is being sunk. Engineers must slow up when passing stations when men are on the cage.

Station Bells.

Bells	Pause	Bells	No. Station	Bells	Pause	Bells	No. Station
2	"	1	1	5	"	1	16
2	"	2	2	5	"	2	17
2	"	3	3	5	"	3	18
2	"	4	4	5	"	4	19
2	"	5	5	5	"	5	20
3	"	1	6	6	"	1	21
3	"	2	7	6	"	2	22
3	"	3	8	6	"	3	23
3	"	4	9	6	"	4	24
3	"	5	10	6	"	5	25
4	"	1	11	7	"	1	26
4	"	2	12	7	"	2	27
4	"	3	13	7	"	3	28
4	"	4	14	7	"	4	29
4	"	5	15	7	"	5	30

Where electric bells are used in connection with other bells.

If cage is wanted ring station signal. Station tender will answer 1 bell.

Reply 1 bell to go up.

Reply 2 bells to go below.

If station is full of ore and station tender is wanted, ring station signal and do not answer back.

If 2-1-2 bells are rung, engineer or station tender does not understand, repeat signal.

In case of danger or accident, ring station signal, station tender will reply 1 bell, ring 9 bells.

One copy of this code should be posted on the gallows frame and one before the engineer.

To be in effect from and after June 1st, 1895.

This code is subject to change under certain conditions.

Penalty for Violation of Law Governing Inspector of Mines.

(Revised Codes.)

Penal Code, 1907.

Section 8563. Every person who violates any of the provisions of Article XIV, Chapter III, Part III, of the Political Code, relating to the inspection of mines, and every person who violates any of the provisions of Chapter XXIV, Title VII, Part III, of the Political Code, relating to dams and reservoirs, is guilty of a misdemeanor.

Section 8535. Protecting Mining Shaft in City—Penalty. Every person who sinks any shaft or runs any drift or cut, or causes the same to be done, within the limits of any city or town or village in this State, or within one mile of the corporate limits of any city or town, or within three hundred feet of any street, road or public highway, and who shall fail to place a substantial cover over or tight fence around the same is punishable by a fine not exceeding one thousand dollars (\$1,000.)

The owner of any property, or his agent in charge thereof, or any person in possession of the same, shall be deemed to be within the provisions of this act if he permit any such shaft, drift or cut to remain open, exposed or unprotected upon his property, or the property in his charge or possession, for a period of more than 10 days.

Mining, irrigating and other ditches may be dug or cut to a depth not exceeding ten feet without incurring the penalty of this section.

Chapter 3.

Protection to Underground Miners.

(Part I, Title X, Revised Codes.)

Section 8536. Safety Cages.

8537. Stopping Near Shaft.

8538. Running Cage at Excessive Speed.

8539. Maintaining Buildings Near Mouth of Shaft.

8540. Violations of Act—Penalties.

8541. Escapement Shaft.

8542. To What Mines Act Applicable.

8543. Penalties.

Section 8536. Safety Cages. It is unlawful for any corporation (or person) to sink or work, through any vertical shaft where mining cages are used, to a greater depth than three hundred feet, unless said shaft shall be provided with an iron-bonneted safety cage, to be used in the lowering and hoisting of the employees thereof, said cage to be also provided with sheet iron or steel casing not less than one-eighth inch in thickness; doors to be made of the same material shall be hung on hinges, or may be made to slide and shall not be less than five feet high from the bottom of the cage, and said doors must be closed when lowering or hoisting the men. Provided, that when such cage is used for sinking only, it need not be equipped with such doors as are hereinbefore provided for.

The safety apparatus, whether consisting of eccentrics, springs or other device, must be securely fastened to the cage, and must be of sufficient strength to hold the cage loaded at any depth to which the shaft may be sunk.

The iron bonnet of the aforesaid cage must be made of boiler sheet iron, of good quality, of at least three-sixteenths of an inch in thickness, and must cover the top of such cage in such manner as to afford the greatest protection to life and limb from anything falling down said shaft.

It shall be the duty of the mining inspector and his assistant to see that all cages are kept in compliance with this section and to also see that the safety dogs are kept in good order.

Every person or corporation failing to comply with any of the provisions of this section is punishable by a fine of not less than three hundred dollars, nor more than one thousand dollars.

Section 8537. Stopping Near Shaft. It is unlawful for any corporation or person operating any mine in this State worked through a vertical or incline shaft to stop within a less distance than twenty-five (25) feet of the said shaft when other work is being carried on below said stopping.

Section 8538. Running Cage at Excessive Speed. It is unlawful for any person or corporation operating any mine in this State worked through a vertical or incline shaft, where a cage or other device is used for the purpose of hoisting or lowering men, to run such cage when men are upon the same at a greater rate of speed than eight hundred (800) feet per minute.

Section 8539. Maintaining Buildings Near Mouth of Shaft. It is unlawful for any person, company or corporation to erect or maintain any building or inclosure, used for a blacksmith shop or drying room within a distance of fifty (50) feet of the mouth of any tunnel or shaft, unless the same be fire-proof in its construction.

Section 8540. Violation of Act—Penalties. The penalty for violating the provisions of any of the preceding sections is the same as provided in Section 8536 of the Revised Codes.

Provided, that when it shall appear that any engineer has violated the express order of his employer in running his engine at a greater speed than 800 feet per minute the engineer alone shall be subject to prosecution, and to fine imposed by the provisions of this Act.

Section 8541. Escapement Shaft. It is the duty of any person, company or corporation, who shall have sunk on any mine a vertical or incline shaft to a greater depth than one hundred feet, and who shall have the top of such shaft or hoisting opening covered or enclosed by a shaft or building which is not fire-proof, and who shall have drifted on or along the vein or veins thereof, a distance of two hundred feet or more, after cross cutting to the same, and shall have commenced to stope, to provide and maintain to the hoisting shaft or the opening through which men are let into or out of the mine and the ore is extracted, a separate escapement shaft, raise, or opening, or an underground opening or communication between every such mine and some other contiguous mine, provided, that in case such contiguous mine belongs to a different person, company or corporation, the right to use the outlet through such contiguous mine in all cases when necessary, or in cases of accident, must be secured and kept in force. Where such an escapement shaft or opening shall not be in existence at the time that stoping is commenced, work upon such escapement shaft or opening must be commenced as soon as stoping begins and be diligently prosecuted until the same is completed, and said escapement shaft, raise or opening shall be continued to and connected with the lowest workings in the mine. The exit, escapement shaft, raise or opening provided for in the foregoing paragraphs must be of sufficient size as to afford an easy passage way and if it be a raise, or shaft, must be provided with good and substantial ladders from the deepest workings to the surface. Whenever the exit or outlet herein provided for is not a direct or continuous course, signboards plainly marked showing the direction to be taken must be placed at each departure from the continuous course.

Section 8542. To What Mines Act Applicable. This Act shall apply only to quartz mines in which nine or more men are employed underground, and shall not apply to mines not actually extracting ores, by stoping, nor to mines in which the shaft or hoisting opening, or hauling way is not covered by a shaft house, and has no building structure within thirty (30) feet of the shaft or opening nor to mines in which the hoisting shaft or opening shall be covered by or enclosed in a fire-proof shaft or building.

Section 8543. Penalties. The penalty for violating any of the provisions of the preceding sections is the same as provided in Section 8536 of the Revised Codes.

Chapter 4.

Storing of Explosives.

(Revised Codes, Part I, Title X.)

Section 8545. Regulating Sales of Explosives.

8546. Storage of Explosives in Mines.

8547. Storage of Explosives in Cities.

8552. Penalties.

8553. Penalty in Case of Death Caused by Violation of Act.

Section 8545. Regulating Sales of Explosives. That every person, company or corporation, manufacturing, storing, selling, transferring, dealing in, or in any manner disposing of any powder, gunpowder, giant or Hercules powder, giant caps, or other highly explosive substance, shall keep in a book for that purpose an accurate record of all transactions, with the date thereof, relating to the receiving and disposing of the same, which record shall show the amount of each such explosive received, by whom transported or conveyed, and each and every sale or other disposition made of such explosive, with the amount thereof, and the name of the person to whom delivery of the same was made, who shall be required to receipt therefor. Such records shall at all times be open to the inspection of the State Inspector of Mines, or any peace officer.

Section 8546. Storage of Explosives in Mines. No person, company or corporation shall store, deposit or keep in any mine a greater quantity than three thousand pounds of blasting powder, giant or Hercules powder, or other highly explosive substance, and no explosives named in this section shall be stored, deposited or kept in any place where its accidental explosion would cut off the escape of miners working in said mine.

Section 8547. Storage of Explosives in Cities, Etc. No person, company or corporation, shall store, deposit or keep within one mile of the limits of any city, town or village, any powder, gunpowder, giant or Hercules powder or other highly explosive substance, in greater quantities than one hundred pounds, nor more than one thousand giant caps, at any one time, nor shall such explosives be stored, deposited or kept in any quantities whatever within one mile of such city, town or village, except in a magazine constructed as hereinafter described. Provided, that this section shall not be construed to prevent any person, company or corporation, operating a mine within one mile of the limits of such city, town or village, from storing powder for use in such mine in the manner prescribed in Sections 8546 and 8548 of this Act. Provided, also, that this section shall not prevent the keeping of a reasonable amount of gunpowder, not exceeding fifty pounds, in a safe place for sale.

Section 8552. Penalties. Any person, or association or persons, violating any of the provisions of this Act, shall be punished by imprisonment in the penitentiary not exceeding five years, or by fine

not exceeding five thousand dollars, or by both such fine and imprisonment.

Section 8553. Penalty When Death Caused by Violation of this Act. When the death of any person is caused by the explosion of any powder, gunpowder, giant or Hercules powder, giant caps, or other highly explosive substance, that has been stored, kept, handled or transported, contrary to the provisions of the foregoing sections, the person or persons who have so unlawfully stored, kept, handled or transported such explosives, or who may have knowingly or negligently permitted their agents, servants or employees to so unlawfully store, keep, handle or transport the same, shall be guilty of manslaughter, and on conviction shall be punished by imprisonment in the State penitentiary for a period not exceeding ten years.

Chapter 72.

Laws 1911, p. 135.

"An Act to Improve the Sanitary Condition of Quartz Mines by Providing for the Proper Ventilating of the Same, and for Protecting the Lives of Miners and Providing Penalties for the Violation of This Act."

Be It Enacted by the Legislative Assembly of Montana:

Section 1. It shall be the duty of all mining operators of any and all quartz mines in this State, when working to a greater depth than three hundred feet, or any general manager, superintendent, or foreman acting on behalf of the above, whether said mining property is operated by tunnel, shaft, or other opening, to provide where necessary, feasible and practicable, a suitable and practical method for ventilating said mine either by separate shaft, or other mine working of suitable size or capacity which said ventilating system shall provide for the delivery of air to all portions of said mine that are being operated, and also provide reasonable means for carrying away of noxious fumes, gas, or smoke.

Section 2. It shall be the duty of all mining operators to provide suitable and practicable toilet arrangements, or places which may be used for toilet purposes, for the use of employees in mines, such toilets, or sanitary arrangements, may consist of a properly constructed toilet car, or receptacle where it is practical and feasible to use the same, that may be taken into the different working levels of a mine, and when such cars, or receptacles, are used they shall be sent to the surface each day for proper cleaning or disinfecting. Where proper toilet apparatus is not provided, the employee shall be allowed to go to surface or other suitable place, which place shall be kept in a reasonably sanitary condition. Underground stables shall be cleaned and droppings in waste taken to the surface each day. This section applies to mines working thirty men or over.

Section 3. Underground workings, consisting of chutes, manways and winzes, or any opening kept for ventilation purposes, or for the removal of ore, or waste material, shall when necessary be protected by guard rails, or by suitable cover known as a grizzly, made of good substantial timbers, or metal bars. Shafts at stations shall be protected by guard rails at every level. In vertical manways, used by employees exclusively for traveling purposes in addition to proper ladders there shall be suitable landings, placed not to exceed thirty feet apart and so far as feasible and practicable all such manways, or air courses, used as an escape for men must be kept free from all obstructions.

Section 4. Every mining operator, whether person or corporation, failing to comply with any of the provisions of this Act, or any general manager, superintendent, or foreman acting on behalf of such mining operator and failing to comply with any of the provisions of this Act, shall be guilty of a misdemeanor.

Approved March 2, 1911.

Chapter 120.

Laws 1911, p. 261.

"An Act to Regulate the Operation of All Coal Mines in the State of Montana, to Provide for Their Inspection and the Qualifications of Inspectors and Certain Other Employees of Coal Mines and to Codify All Laws with Reference to the Operation of All Coal Mines in the State of Montana, Repealing Sections 1679, 1680, 1681, 1682, 1683, 1684, 1685, 1686, 1687, 1688, 1689, 1690, 1691, 1692, 1693, 1694, 1695, 1696, 1697, 1698, 1699, 1700, 1701, 1702, 1703, 1704, 1705, 1706, 1707, 1708, 1709 and 1710, 2023 of the Revised Codes of the State of Montana and Chapters 64 and 65 of the Laws of 1909."

Be It Enacted by the Legislative Assembly of the State of Montana:

Qualifications of Coal Mine Inspector.

Section 3. No person shall be eligible to the office of State Coal Mine Inspector until he shall have attained the age of thirty years. He shall be a citizen of the United States, a qualified resident of the State of Montana, shall have been actually employed at coal mining ten years prior to his appointment and shall possess a competent knowledge of all the different systems of coal mining and working and properly ventilating coal mines, and the nature and constituent parts of noxious and explosive gases of coal mines, and of the various ways of expelling the same from the said mines. He shall have passed a successful examination by the Board of Examiners and his certificate of qualification shall have been filed with the Governor by the said Board of Examiners, as provided by law.

Powers and Duties of Inspector.

Section 5. The State Coal Mine Inspector shall have the right, and it is hereby made his duty, to enter, inspect, and examine any coal mine or any shaft, drift or stope in the process of sinking for the purposes of mining coal in this State and the workings and the machinery belonging thereto, at all reasonable times, either by day or night, but not so as to impede or obstruct the workings of the mine, and when such inspection is contemplated he shall first notify the person in charge of his intention to make such examination. He shall also have the right and it is his duty to make inquiry into the condition of such mine, workings, machinery, scales, ventilation, drainage, method of lighting or using lights, and into all methods and things connected with or relating to, as well as to make suggestions providing for the health and safety of persons employed in or about the same, and especially to make inquiry whether or not the provisions of the laws providing for the regulation of coal mines, or other acts which may hereafter be enacted governing coal mines, have been complied with. The owner, operator or superintendent of such mine is hereby required to furnish the means necessary for such entry, inspection, examination, inquiry and exit. It shall also be the duty of the said Coal Mine Inspector to carefully examine all the coal mines in operation in this State at least every three months and oftener if necessary; to see that every precaution is taken to insure the safety of all the workmen that may be engaged in said coal mine. The said Inspector shall make a record of the visit, noting the time and the material circumstances of the inspection. At the time of making his regular quarterly inspection, in the event of the Inspector having in his possession any complaint in writing to the effect that the mining code is being violated, he shall notify the employees that he is about to make such inspection, and if the employees, in some proper manner, select one of their number to accompany the Inspector on such inspection, he shall permit such employee to so accompany him. In the event of no such selection being made the Inspector may, if he so desire, request some employee to accompany him. The owner or operator shall at all times have the right to personally accompany the Inspector while inspecting his property, or to designate some one to so accompany him.

Inspector Must Not Be Employed by Companies.

Section 6. The said State Coal Mine Inspector while in office shall not act as agent for any corporation, superintendent or manager of any mines, and shall in no manner whatever be under the employ of mining companies nor shall he be interested in any coal mining operation either as owner, lessee or otherwise.

Instruments to be Furnished to Inspector.

Section 7. For the more efficient discharge of the duties herein imposed upon him, the State Coal Mine Inspector shall be furnished at the expense of the State with an anemometer, a safety lamp and whatever other instruments or other appliances may be necessary in order to carry into effect the provisions of the acts regulating coal mines.

Inspector to Post Statement of Mine at Entrance.

Section 8. The State Coal Mine Inspector shall post up in some conspicuous place at the top of each mine visited and inspected by him, a plain statement of the conditions of such mine, showing what in his judgment is necessary for the better protection of the lives and health of persons employed in such mine; such statement shall give the date of inspection and be signed by the said Inspector. He shall also post a notice at the landing used by the men, stating what number of men may be permitted to ride on the cage, car or cars at one time, and at what rate of speed men may be hoisted and lowered on the cage, car or cars in accordance as hereinafter provided for in this Act. He must observe especially that the code of signals provided in the act regulating coal mines between engineer and top men and bottom men, is conspicuously posted for the information of all employees.

Inspector Ex-Officio Sealer of Weights and Measures.

Section 10. The State Coal Mine Inspector is hereby made, equally with the County Clerk, ex-officio sealer of weights and measures, in so far as the same relates to coal mines and coal mining, and as such is empowered to test and compare all weights and measures used in weighing and measuring coal at any coal mine, or used in measuring air passages or other openings in coal mines, with the standards of weights and measures kept by the County Clerk of any county. Upon the written request of any coal mine owner or operator or ten coal miners employed at any one mine, it shall be his duty to test and prove any scale or scales at such mine against which complaint is directed and if he shall find that they or any of them do not weigh correctly, he shall call the attention of the mine owner, lessor or operator to the fact and direct that said scale or scales be at once overhauled and readjusted so as to indicate only true and correct weights, and he shall forbid the further operation of such scale until such scales are adjusted. In the event that such test shall conflict with any test made by any county sealer of weights and measures, or under and by virtue of any municipal ordinance or regulation, then the test by such State Coal Mine Inspector shall prevail.

Standard Test Weights to be Furnished to Inspector.

Section 11. For the purpose of carrying out the provisions of this Act, the State Coal Mine Inspector shall be furnished by the State with such sets of standard weights suitable for testing the accuracy of track scales, and all smaller scales at mines, as may in the judgment of the State Coal Mine Inspector be necessary; said test weights shall remain in the custody of the State Coal Mine Inspector for use at any point within the State, and for any amounts expended by him for the storage, transportation or the handling of the same, he shall be fully reimbursed upon making proper entry of the proper items in his expense voucher.

Refusal of Mine Operator to Furnish Facilities for Examination.

Section 12. If any owner, lessor or operator shall refuse to permit such inspection or to furnish the necessary facilities for making such examination and inspection, the inspector shall file his affidavit setting forth his refusal, with the judge of the District Court in said county in which said mine is situated, either in term time or vacation, and obtain an order on such owner, operator or agent so refusing as aforesaid, commanding him to permit and furnish such necessary facilities for the inspection of such coal mine, or to be adjudged to stand in contempt of court and punished accordingly.

Investigation of Charges for Neglect of Duty.

Section 13. Whenever a petition signed by fifty or more reputable citizens, legal residents of the State, verified by oath by two or more of the said petitioners and accompanied by a bond in the sum of five hundred dollars, running to the State, executed by two or more freeholders, approved and accepted by the Clerk of the District Court of the county or counties of their residence, conditioned for the payment of all costs and expenses arising from the investigation of the charges is filed with the Clerk of the District Court setting forth that the State Inspector of Mines neglects his duties or is incompetent, or is guilty of malfeasance in office or misfeasance in office, it shall be the duty of the District Court of the county to issue a citation in the name of the State to the said Inspector, to appear, at not less than five days' notice, on a day fixed, before said court, and the court shall then proceed to inquire into and investigate the allegations of the petitioners; such action shall be prosecuted by the County Attorney.

Penalties for Violation of Duty.

Section 14. If the court finds that the said State Coal Mine Inspector is neglectful of his duties or incompetent to perform the duties of his office, or that he is guilty of malfeasance or misfeasance in office, the court shall certify the same to the Governor, who shall declare the office of said State Coal Mine Inspector vacant, and proceed in compliance with the provisions of this Act to fill the vacancy and the costs of such investigation shall, if the charges are sustained, be imposed upon the said State Coal Mine Inspector.

Board of Examiners of Applicants for Coal Mine Inspector— Appointment.

Section 15. The Governor of the State shall within sixty days after the passage of and approval of this Act, upon the recommendation of the coal miners of this State, appoint one practical coal miner actively employed in coal mining in the State of Montana, and one mine manager or superintendent, who shall be recommended to the Governor by the majority of the coal mine operators of the State of Montana, and one practical coal mining engineer; the three so named by the Governor shall constitute a Board of Examiners to pass upon the qualifications of applicants for State Coal Mine Inspector of the

State of Montana. They shall hold office for four years and until their successors, appointed in the same manner, are appointed and qualified.

Scope of Examination.

Section 16. It shall be the duty of the said Board to examine into the qualifications of all applicants for appointment to the position of State Coal Mine Inspector of the State of Montana, by conducting a thorough examination as to their knowledge of mine workings, ventilation, gases, fire damp, machinery and actual experience in underground coal mining, and to acquaint themselves with the personal character, habits and general worthiness of each applicant. The general examination shall be in writing, and the manuscript and other papers of all applicants, together with the tally sheets and the solution of each question as given by the Examining Board, shall be filed with the Secretary of State as public documents, but such applicants shall undergo an oral examination pertaining to explosive gases and safety lamps. All candidates shall be allowed the use of such text books as in the discretion of the Board may be deemed proper, during the examination. The Board of Examiners shall confine the examination of applicants to subjects such as are designated in this section. No person shall be certified as competent whose average per cent shall be less than 75 per centum and his certificate shall show what per cent the applicant has attained, and such certificate shall be valid only when signed by a majority number of the Examining Board. The Examining Board shall, immediately after the examination, furnish to each person who came before it to be examined a copy of all questions, whether oral or written, which were given at the examination, on printed slips of paper, which shall be marked solved right, imperfect or wrong as the case may be, together with a certificate of competency to each candidate who shall have at least 75 per centum.

Applications for Examinations—How Made.

Section 17. Applications to the said Board for examination for State Coal Mine Inspector must be made in writing and accompanied by an affidavit that the applicant is a citizen of the United States, a resident of the State of Montana, and that he has attained the age of thirty years; has had at least ten years' experience in underground coal mining in the United States and at least one year's experience in underground coal mining in the State of Montana.

Selection by the Governor.

Section 18. The Board of Examiners shall file with the Governor the names of all persons who shall have successfully passed the examination. From those so named the State Coal Mine Inspector shall be selected; provided, that any one who has served capably as State Coal Mine Inspector for one full term, upon making written application to the Board setting forth these facts, shall be certified to the Governor as properly qualified for appointment, but no man shall be eligible for the appointment as State Coal Mine Inspector who has any

pecuniary interest in any coal mine, either directly or indirectly, as owner, lessee, or employer, or otherwise.

Meetings of Examining Board—Oath of Office.

Section 20. The Board of Examiners appointed under this Act shall each take the following oath of office before some person only authorized by law to administer an oath, We do solemnly swear or affirm that we will perform the duties devolving upon us to the best of our ability, and that in rejecting or recommending applicants for the position of State Coal Mine Inspector for the State of Montana we will be governed by the evidence of qualification to fill the position under the law creating the same, and not by any consideration of political affiliation or personal favors, that we will certify all whom we may find qualified, and who shall have passed the required examination, according to the Act and none other, to the best of our knowledge and judgment. The Board shall meet for the purpose of examining applicants for the position of State Coal Mine Inspector on the second Monday in December, 1912, in the City of Helena, at the State Capitol in the office of the State Coal Mine Inspector, and on the second Monday in December every two years thereafter. The Secretary of State shall furnish whatever blanks, blank books, printing or stationery the Board may require in the discharge of its duties. Public notice of meetings of the Board for the purpose of holding examinations shall be given by the Board, by the posting of notices in the postoffice in the several coal mining towns throughout the State at least fifteen days previous to the date of the examination, and by publication in at least two daily papers published in the City of Helena, for ten consecutive days previous to the holding of the examination.

Examination—Certificate of Fitness.

Section 21. The Board shall then proceed to the examination of those who may present themselves as candidates for said office, and who shall have complied with the requirements necessary to entitle such applicant to be examined as provided for in Section 17 of this Act, and after a thorough examination as to knowledge and qualification of said applicants the said Board of Examiners shall certify to the Governor the names of all such applicants who have successfully passed the required examination for the position of State Coal Mine Inspector as required under the provisions of the law.

Compensation of Board of Examiners—Expenses.

Section 22. The Board of Examiners shall receive as compensation Six Dollars (\$6.00) per diem for the time not exceeding ten days actually engaged in the performance of the duties imposed upon them in this Act and their actual expenses, such compensation to be paid out of the general fund in the manner provided by law.

Appointment of Examining Board.

Section 24. Every four years the Governor shall in the manner provided in Section 15 appoint a Board of Examiners to pass upon the

qualification of applicants for Coal Mine Inspector, which Board shall be constituted, sworn and paid and shall perform the same duties as the Board provided for in Section fifteen (15) of this Act, during the term for which they were appointed.

Examining Board May Adopt Rules.

Section 26. Each successive Board of Examiners shall have the power to adopt their own rules and regulations for examination as will best serve the purpose of this Act, said rules not to conflict with the manner of examination as prescribed in Section sixteen (16) of this Act.

Vacancies in Examining Board—How Filled.

Section 27. Vacancies upon the said Board of Examiners shall be filled by the Governor, in accordance with the intent and provisions of this Act.

Board for Examination of Applicants for Position of Mine Foreman, Etc.

Section 28. On petition of the State Coal Mine Inspector, a judge of the District Court of any county where coal is mined shall appoint an Examining Board of three persons, consisting of the State Coal Mine Inspector, a miner and an operator or superintendent, to be known as the County Examining Board. The members of said Examining Board shall be citizens of the United States and legal residents of the State of Montana, and shall hold office for the term of two years or until their successors have been appointed and qualified. The persons so appointed shall, after being duly organized as a Board, take and subscribe before an officer authorized to administer the same, the following oath namely: We, the undersigned, do solemnly swear or affirm that we will perform the duties of examiners of applicants for the position of mine foreman, mine examiner, or fire boss for the coal mines of Montana to the best of our abilities, and that in certifying or rejecting said applicants we will be governed by the evidence of the qualifications to fill the positions under the law creating the same, and not by any consideration of personal favors; that we will certify all whom we find qualified and none other.

Scope of Examination.

Section 29. The examination shall consist of oral and written questions on theoretical and practical mining on the nature and properties of noxious, poisonous and explosive gases found in the mines, and on the different systems of working and ventilating coal mines. During the progress of the examination the use of such text books as the Board shall approve shall be allowed applicants during the examination, and the Board shall issue to those examined, and found to possess requisite qualifications, certificates of competency for the position of mine foreman, mine examiner or fire boss; but such certificates shall be granted only to persons of twenty-three (23) years of age, or over, of good moral character, citizens of the United States and residents of the State of Montana, and with at least five years' practical experience in the working of coal mines. All papers and blanks, blank books and

stationery used at the examination, to be furnished by the Board of County Commissioners of the said county and each candidate for examination shall be given such questions as are required in writing, and each question shall be on a separate paper.

Candidates must return such papers to the Board, with answer to questions thereon, attested by his signature. All question papers and answers shall be filed in the office of the County Clerk and Recorder, in and for the county where examinations are held, and kept by him in some secure place, subject to examination at any time.

Certificates as Mine Foremen.

Section 30. Certificates of qualifications to mine foremen in the coal mines of Montana, shall be granted by the Board of Examiners herein provided for, to each applicant who shall have passed a successful examination showing his knowledge of mine workings, ventilation, gases, fire damp and his actual experience in underground coal mining. The certificates shall be in a manner and form as shall be prescribed by the State Coal Mine Inspector, who shall keep a record in his department of all such certificates granted. Each certificate shall contain the full name and age and birthplace of applicant and also the length or nature of his previous service in coal mines.

Qualifications for Mine Examiners.

Section 31. Persons seeking certificates of competency as Mine Examiner or Fire Boss must produce evidence satisfactory to the Board that they are citizens of the United States, residents of the State of Montana, have had at least five (5) years' practical experience in working of coal mines, at least twenty-three (23) years of age, and of good repute and temperate habits. They must prepare to submit and satisfactorily pass an examination as to their experience in mines generating dangerous and explosive gases, their practical and technical knowledge of the nature and properties of fire damp, the laws of ventilation, and the structure and use of the safety lamp.

Examining Board Shall Grant Certificates.

Section 32. The said Board of Examiners shall meet at the call of the State Coal Mine Inspector, who shall call them upon receipt of five requests for examination and shall grant certificates to all persons whose examination shall disclose their fitness for the duties of mine foreman as above classified, or mine examiner or fire boss, and such certificate shall be sufficient evidence of the holder's competency for the duties of said position so far as relates to the purpose of this Act; provided, that any person who shall have been employed as mine foreman continually for a period of one year preceding the approval of this Act, by the same firm, person or corporation, shall be granted a certificate without undergoing such examination, but shall not be employed by any other person, firm or corporation without having successfully undergone such examination. No person shall be certified as competent whose average percentage shall be less than seventy-five (75) per centum on his entire examination, and such certificate shall desig-

nate the position qualified for and shall be valid only when signed by a majority of the Examining Board.

Certificates May Be Issued to Those Holding Proper Certificates.

Section 33. The Board may exercise its discretion, in issuing certificates of any class, without examination, to persons presenting with proper credentials certificates for the same or a similar position issued by competent authorities in this or other states; provided, however, that for every such certificate issued, the Board shall charge a fee of five (\$5.00) dollars.

Applications for Examination—How Made—Fees.

Section 34. An applicant for examination for any certificate herein provided for, before being examined, shall register his name with the State Coal Mine Inspector, at Helena, Montana, and file with him the credentials required by this Act, to-wit: An affidavit as to all matters of fact establishing his rights to and qualifications for receiving the examination, and a certificate of good character and temperate habits, signed by at least ten (10) of the citizens who know him best in the place in which he lives. Each candidate, before receiving the examination, shall pay to the State Coal Mine Inspector the sum of two (\$2.00) dollars as an examination fee, and those who pass the examination for which they are entered, before receiving their certificate, shall also pay to the State Coal Mine Inspector the further sum of three dollars (\$3.00) each as a certificate fee. All such fees shall be duly accounted for by the State Coal Mine Inspector and turned into the State Treasurer at the close of the fiscal year.

Compensation of Examining Board.

Section 35. The members of the Examining Board except the State Coal Mine Inspector shall receive as a compensation the sum of five dollars (\$5.00) each day for a term not exceeding two meetings of five days each in any year, and whatever sum is necessary to reimburse them for such traveling expenses as may be incurred in the discharge of their duties. All such salaries and expenses of the members of the Board shall be paid upon vouchers duly sworn to by each member of the said Board and approved and ordered by the State Board of Examiners, and the State Auditor is hereby authorized to draw his warrants on the State Treasurer for the amount thus shown to be due, payable out of any money in the State Treasury not otherwise appropriated.

Violations.

Section 36. (a) Any person who acts in the capacity of mine foreman, mine examiner or fire boss without a certificate of competency as provided for in this Act, shall be deemed guilty of an offense against this Act; provided, however, the State Coal Mine Inspector shall have the power to grant permits to persons to perform the duty of mine foreman, mine examiner or fire boss as provided for in this Act, who may be employed by any company, corporation, association, person or persons engaged in the operating of any coal mines in the State of

Montana until such time as the persons so employed have had an opportunity to be examined as to his competency by the Board of Examiners provided for in this Act, but no longer.

(b) Every company, corporation, association, person or persons operating any coal mine or coal mines in the State of Montana, who employs any uncertified mine foreman, mine examiner or fire boss, except as provided for in Section 33 of this Act, shall be deemed guilty of an offense against this Act; provided, however, that in cases of emergency any competent man may be employed and act as a temporary mine foreman, examiner or fire boss until a certificate or permit can be obtained, not to exceed a period of thirty (30) days, without violating this Act or incurring any of its penalties.

Necessary to Have Maps of Coal Mines.

Section 37. Every operator of every coal mine in this State shall make or cause to be made an accurate map or plan of such mine, drawn to a scale of not less than two hundred feet to one inch, and as much larger as practicable, on which shall appear the name of the state, county and township in which the mine is located, the designation of the mine, the name of the company or owner, the certificate of the mining engineer or surveyor as to the accuracy and date of the survey, the north point and the scale to which the drawing is made.

Underground Survey.

Section 38. For the underground workings the said map shall show all shafts, slopes, tunnels or other openings to the surface or to the workings of a contiguous mine, all excavations, entries, rooms and crosscuts, the rise or dip of the seam from the bottom of the shaft, mouth of drift or slope in either direction to the face of the workings, the location of the fan or furnace, the location of the permanent pumps, hauling engines, engine planes and firewalls, the location of any standing water which might prove a menace to life or danger to property from flood, and the line of any contiguous surface outcrop of the seam.

Map for Every Seam.

Section 39. A separate and similar map, drawn to the same scale in all cases, shall be made of each and every seam, which, after the passage of this Act, shall be worked in any mine, and the maps of all such seams shall show all shafts, drifts, tunnels, incline planes or other passageways connecting the same.

Map of the Surface.

Section 40. Every such map or plan, or at the option of the operator a separate map, shall show the surface boundary lines contiguous to the workings and pertaining to each mine, also all section or quarter section lines and corners, town lots and streets, the tracts and side tracts of all railroads, the location of all wagon roads, rivers, streams, ponds, buildings, landmarks and principal objects on the surface within the said boundary lines; and in all cases if of a separate surface map the same shall be drawn on transparent cloth or paper so that it can

be laid upon the map of the underground workings and thus truly indicate the relative position of the lines and objects on the surface to the excavations of the mine.

Copies of Maps for State Coal Mine Inspector.

Section 41. The original or true copies of all such maps shall be kept in the office at the mine, and true copies thereof shall also be furnished the State Coal Mine Inspector within thirty days after completion of the same. The maps so delivered to the Inspector shall be the property of the State and shall remain in the custody of the said Inspector during his term of office and be delivered by him to his successor in office. They shall be kept at the office of the Inspector and be open to inspection by all persons interested in the same, but such examination shall only be made in the presence of the Inspector and he shall not permit any copies of the same to be made without the written consent of the operator or owner of the property, under penalty of removal from office.

Annual Surveys.

Section 42. An extension of the last preceding survey of every mine in active operation shall be made once in every twelve months, prior to July 1st of every year, and the result of said survey, with the date thereon, shall be promptly and accurately entered upon the original maps so as to show all changes in plain or new work in the mine and all extensions of the workings to the most advanced face or boundary of said workings which have been made since the preceding survey. The said changes and extensions shall be entered upon the copies of the maps in the hands of the State Coal Mine Inspector, or new copies thereof be furnished him, within thirty days after the last survey is made. Whenever the operator of any mine shall neglect or refuse, or for any cause not satisfactory to the State Coal Mine Inspector fail, for a period of three months, to furnish to the said State Coal Mine Inspector the map or plan of such mine, or a copy thereof or of the extension thereto, as provided for in this Act, the said State Coal Mine Inspector is hereby authorized to make or cause to be made an accurate map or plan of such mine at the expense of the owner or lessor thereof, and the cost of the same may be recovered by law from said owner, lessor or operator in the same manner as other debts by suit in the name of the State.

Abandoned Mines.

Section 43. When any coal mine is worked out or is about to be abandoned or indefinitely closed the operator of the same shall make or cause to be made a final survey of all available parts of such mine, and the results of the same shall be duly extended on all maps of the mine and copies thereof, so as to show all excavations and the most advanced workings of the mine, and their exact relations to the boundary or section lines on the surface.

The State Coal Mine Inspector may order a survey to be made of the workings of any mine which is about to be abandoned, or of which

he has reason to believe the maps are inaccurate, whenever in his judgment the safety of the workmen, the support of the surface, the conservation of the property or the safety of an adjoining mine requires it. Such survey shall be paid for by the State.

Mine Operators to Furnish Wash Houses for Employees.

Section 44. It shall be the duty of the owner, operator or superintendent of any coal mine in the State of Montana to provide a suitable building, not an engine or boiler house, for the use of the persons employed in such mine for the purpose of washing themselves and changing their clothes when entering the mine and returning therefrom. The said building shall not be over 800 feet from and convenient to the principal entrance of such mine when practical to do so. When not practicable to build the wash house within the said distance and still conform to the other requirements of this section the State Coal Mine Inspector may give written permission to place the building at a greater distance from the mine than that herein specified and the operator shall not be guilty of violation of this section. The said building shall be maintained in good order, be properly lighted and heated and supplied with pure cold and warm water, and be provided with facilities for persons to wash and a suitable locker for each person to be used by him as a repository for his clothes.

If any person shall maliciously injure or destroy or cause to be injured or destroyed, the said building or any part thereof, or any of the appliances or fittings used for supplying light, heat or water therein or doing any act tending to the injury or destruction thereof, he shall be deemed guilty of an offense against this Act and subject to a fine as hereinafter provided for.

Oath of Weighman—Check Weighman.

Section 45. The weighman employed at any mine shall subscribe to an oath or affirmation before some officer authorized to administer oaths, to do justice between employer and employee, and to truly and correctly weigh the output of coal from the mines as herein provided. The miners employed by or engaged in working for any mine owner, operator or lessee of any mine in this State shall have the privilege, if they desire, of employing at their own expense a check weighman, who shall have like equal rights, powers and privileges in the weighing of coal as the regular weighman and be subject to the same oath and penalties as the regular weighman. Said oath or affirmation shall be kept conspicuously posted in the weight office, and any weigher of coal or person so employed, who shall knowingly violate any of the provisions of this section, or any owner, operator or agent of any coal mine in this State who shall forbid or hinder miners employing or using a check weighman as herein provided, or who shall prevent or wilfully obstruct any such check weighman in the discharge of his duty, shall be deemed guilty of an offense against this Act. Whenever the State Coal Mine Inspector, or his deputy, shall be satisfied that the provisions of this section have been wilfully violated it shall be his duty to forthwith inform the prosecuting attorney of any such viola-

tion, together with all the facts within his knowledge and the prosecuting attorney shall thereupon investigate the charges so preferred, and if he is satisfied that the provisions of this section have been violated, it shall be his duty to prosecute the person or persons guilty thereof.

Must Not Use False Weights.

Section 46. Any person or persons having or using any scale or scales for the purpose of weighing the output of coal mines must not arrange or construct them so that fraudulent weighing may be done thereby, and must not knowingly resort to or employ any means whatsoever by reason of which such coal is not correctly weighed and reported in accordance with the provisions of this Act.

General Equipment of Shafts.

Section 47. Every hoisting shaft must be equipped with safely constructed substantial cages fitted to guide rails running from the top to the bottom of shaft. Said cage must be furnished with suitable boiler iron covers to protect persons riding thereon from falling objects and with sheet iron or steel casings on each side, not less than one-eighth inch in thickness, or wire netting of not less than one-eighth inch in diameter. They must be equipped with safety catches, said safety apparatus, whether consisting of eccentrics, springs or other devices, must be securely fastened to each cage and must be of sufficient strength to hold the cage loaded at any depth to which the shaft may be sunk. Every cage must be fitted with iron bars, chains or rings in proper place and sufficient in number to furnish a secure hand hold for every person permitted to ride thereon. Gates not less than four feet high from the bottom of the cage shall be fitted to each cage and must be used during the regular hoisting or lowering of men; provided, that when such cage is used for sinking only it need not be equipped with such doors as are hereinbefore provided for. At the top landing cage supports, when necessary, must be carefully set and adjusted so as to act automatically and securely hold the cage when at rest.

Passageway Around the Bottom of Shafts.

Section 48. At the bottom of every shaft and at every caging place therein a safe and commodious passageway must be cut around such landing place to serve as a travelway by which men or animals may pass from one side of the shaft to the other without passing under or on the cage.

Gates at the Top of Shaft.

Section 49. The upper and lower landings at the top of each shaft and the opening of each intermediate seam from or to the shaft, shall be kept free and clear from loose materials and shall be securely fenced with automatic or other gates, so as to prevent either men or materials from falling into the shaft.

Two Places of Egress.

Section 50. For every coal mine in this State, whether worked by shaft, slope or drift, there shall be provided and maintained in addition to the hoisting shaft, slope or drift or other place of delivery a separate escapement shaft, slope or drift or opening to the surface, or an underground communication passageway between every such mine and some other contiguous mine, such as shall constitute two distinct and available means of egress to all persons employed in such coal mine. The time allowed for completing such escapement shaft or drift or making such connections with an adjacent mine, as is required by the terms of this Act shall be three months for shafts, slopes or drifts two hundred feet or less in depth or length, six months for shafts, slopes or drifts less than five hundred feet in depth or length and more than two hundred, and twelve months for all other shafts, slopes or drifts or connections with adjacent mines. The time to date in all cases from hoisting of coal from main shaft, slope or drift.

Unlawful to Employ More Than Ten Men.

Section 51. It shall be unlawful to employ at any one time more men than in the judgment of the State Coal Mine Inspector is absolutely necessary for speedily completing the connections with the escapement shaft, slope or drift or adjacent mine and said number must not exceed ten men at any one time for any purpose in said mine until such escapement connection is completed.

Passageways to Escapement.

Section 52. Such escapement shaft or opening, or communication with an adjacent mine aforesaid, shall be constructed in connection with every seam of coal worked in such mine, and all passageways communicating with the escapement shaft or place of exit, from the main hauling ways to said place of exit, shall be maintained free of obstructions, at least five feet wide and five feet in height. Such passageways must be so graded and drained that it will be impossible for water to accumulate in any depression or dip of the same, in quantities sufficient to obstruct the free and safe passage of men. At all points where the passageway to the escapement shaft or other place of exit is intersected by other roadways or entries, conspicuous signboards shall be placed indicating the direction it is necessary to take in order to reach such place of exit. Where pillars are being drawn on an entry outside of where other men are working, or where more than 50 per cent of the coal is taken out in rooms, connections for escapement shall be made with some adjoining entry to provide a safe exit for the men.

Distance of Escapement From Main Shaft.

Section 53. The distance between the main shaft and escapement shall not be less than one hundred feet where steel headframes are used; nor less than three hundred feet where wooden headframes are used; provided, that where slopes or drifts are driven in or on the coal strata, the distance between the escapement road or travelway and the slope drift or hauling way shall not be less than fifty feet.

Buildings on Surface.

Section 54. It shall be unlawful to erect any inflammable structure or building in any space intervening between the main shaft, slope or drift and the escapement shaft, slope or drift on the surface, or any powder magazine in such location or manner as to jeopardize the free and safe exit of the men from the mine by said escapement shaft, slope or drift in case of fire in the main shaft, slope or drift buildings.

Stairway or Cages in Escapement Shaft.

Section 55. The escapement shaft at every mine which does not exceed one hundred feet in vertical depth shall be equipped with safe and ready means for the prompt removal of men from the mine in time of danger, and such means shall be a substantial stairway which shall be provided with handrails and with platforms or landings not more than ten feet apart. Where the escapement exceeds one hundred feet in vertical depth, in place of the stairway, it may be equipped with a cage for hoisting men, and such cage must be suspended between guides and be so constructed that falling objects cannot strike persons being hoisted upon it. Such cage must be operated by steam or electricity which power shall be kept available for immediate use at all times and equipment of said hoisting apparatus shall include a depth indicator, a brake on the drum, a steel or iron cable and safety catches on the cage; and all such hoisting machinery must be inspected at least once each week by some competent person representing the operating company or owner.

Obstructions in Escapement Shaft.

Section 56. No accumulation of ice or obstruction of any kind shall be permitted in any escapement shaft, nor shall any steam be discharged into said shaft; and all surface or other water which flows therein shall be conducted by rings or otherwise, to receptacles for same so as to keep the stairway or cage free from falling water.

Weekly Inspection of Escapements.

Section 57. All escapement shafts and passageways leading thereto or to the works of a contiguous mine must be carefully examined at least once each week by the mine foreman or by a man specially delegated by him for that purpose, and the date and findings of such inspection must be entered in a record book in the office at the mine. If obstructions are found their location and nature must be stated, together with the date on which they were removed.

Communication With Adjacent Mines.

Section 58. When operators of adjacent mines have by agreement established underground communication between said mines as an escapement outlet for the men employed in both mines, the roadways to the boundary on either side shall be regularly patrolled once each week and kept clear of all obstructions to travel by respective operators, and the intervening door shall remain unlocked and ready at all times for immediate use. When such communication has once been

established between adjacent mines, it shall be unlawful for the operator of either mine to close the same without the consent of the contiguous operator and the State Coal Mine Inspector; provided, that when either operator desires to abandon mining operations the expense and duty of maintaining such communications shall devolve upon the party continuing operations and using the same.

Ventilation of Mines.

Section 59. The owner, operator or superintendent of every coal mine, whether operated by shaft, slope or drift, shall provide and hereafter maintain ample means of ventilation for the circulation of air through the main entries, cross entries and all other working places, to an extent that will dilute, carry off and render harmless the noxious or dangerous gases generated in the mine, affording not less than one hundred cubic feet per minute for each and every person employed therein, and not less than six hundred cubic feet per minute for each and every animal in the mine; but in any mine, or section of a mine, where firedamp is generated, not less than one hundred and fifty cubic feet of air per minute shall be provided for each person or as much more as may be necessary to keep such section free from firedamp. The quantities of air in circulation shall be ascertained with an anemometer or other efficient instrument; such measurement shall be made by the foreman or his assistants once a week at the inlet and outlet airways, and also at or near the face of each entry, and shall be recorded in a book kept for that purpose at the mine office. The quantity of air as provided for in this Act for each person shall be conducted to each working place.

In rooms generating firedamp the volume of air required by this Act shall be conducted to the face thereof by the use of brattice cloth or other suitable means.

Pressure Guages.

Section 60. At each mine generating firedamp so as to be detected by a safety lamp a water guage for the purpose of recording the pressure or vacuum of the main air current shall be provided and maintained which shall be kept in constant use and records preserved subject to the inspection of the State Coal Mine Inspector or his authorized representative.

Number of Persons Permitted to Work in Same Air Current.

Section 61. The current of air in mines must be split or subdivided so as to give a separate current to a number not exceeding one hundred men at work, and the Inspector has the discretion to order a separate current for a smaller number of men if special conditions render it necessary.

Crosscuts and Brattices for Ventilation.

Section 62. Crosscuts between the entries, except where the same are within the confines of shaft bottom pillars, shall be made not exceeding sixty feet apart, unless sufficient brattice is used to keep the air current up to the entry face, in which case they shall not ex-

ceed one hundred feet apart. When there is a solid block on one side of a room, crosscuts shall be made between such room and the adjacent room not to exceed sixty feet apart; where there is a breast or group of rooms, a crosscut shall be made on one side or the other of each room, except the room adjoining said block, not to exceed fifty feet from the outside corner of the crosscut to the nearest corner of the entrance of the room and on the opposite side of the same room a crosscut shall be made not to exceed ninety feet from the outside corner of the crosscut to the nearest corner of the entrance of the room, and thereafter crosscuts shall be made not to exceed eighty feet apart on each side of the room. The required air current shall be conducted to the crosscut nearest the face of each entry or room.

Brattices between permanent inlet and outlet airways shall hereafter be constructed in a substantial manner of brick, blocks, masonry, concrete or non-perishable material. Rooms must not be worked in advance of the ventilating current.

Operation of Ventilating Fans; Furnaces, Etc.

Section 63. All ventilating fans, furnaces and any means in use to ventilate mines shall be kept in constant operation, day and night, in mines generating firedamp or where two shifts are being worked. Where no firedamp is generated, or only one shift is worked, the fan, furnace or other means of ventilation shall be started and kept running not less than two hours before the time to begin work. Should it at any time become necessary to stop the fan or other means of ventilation on account of accident or needed repairs to any part of the machinery, furnace or other means of ventilation connected therewith, or by reason of any unavoidable cause, it shall then be the duty of the mine foreman, or any official in charge, after first having provided as far as possible for the safety of the persons employed in the mine, to order said fan or other means of ventilation to be stopped so as to make the necessary repairs or to remove any other difficulty that may have been the cause of such stoppage. All ventilating furnaces in mines shall, for two hours before the appointed time to begin work and during working hours, be properly attended by a person employed for the purpose.

Overcasts, Air Bridges and Doors—How to Be Constructed.

Section 64. In all mines, all main air bridges or overcasts built after the passage of this Act shall be constructed of masonry or other incombustible material of ample strength, or be driven through the solid strata. In all mines the doors used in guiding and directing ventilation of the mine shall be so hung and adjusted that they will close themselves, or can be supplied with springs or pulleys so that they cannot be left standing open, and an attendant shall be employed at all principal doors through which cars are hauled, for the purpose of opening and closing said doors when trips or cars are passing to and from workings, unless an approved self acting door is used. Necessary room shall be provided at each door so as to protect said attendant from being run over by the cars while attending to his duties, and

persons employed for this purpose shall at all times remain at their post of duty during working hours. On every inclined plane, or where haulage is done by machinery, and where a door is used, an extra door shall be provided to use in case of necessity.

Underground Stables.

Section 65. Where livestock is kept underground the stables or stalls shall be separated from the main aircourse by not less than twenty feet of solid strata or a solid wall of brick masonry or concrete, not less than twelve inches in thickness. The construction of the stable shall as far as possible be free from all combustible material. No hay or straw shall be taken into the mine unless same be compressed into compact bales, and only from time to time in such quantities as will be required for two days' use. No greater quantity of hay or straw shall be stored in the mine or stable and when such is taken inside the mine it shall be taken to the stable at once and placed in a separate room provided therein for the same. The stable must be so placed that the air ventilating the same is returned immediately to the main outlet aircourse and not allowed to go further into the mine to where men are working. The connections between the aircourses and the stables must be fitted with substantial doors, placed so that they can be readily reached in the event of fire in the stable. Where conditions prohibit the use of entirely incombustible material in the construction of the stable the doors leading to or from the same shall be made of iron or steel plate, not less than one-quarter inch in thickness, set in masonry or concrete walls. The lights used in the stable shall be incandescent lamps placed so that the same will not be injured by the stock or the persons required to enter the stable, or lanterns of railroad type suitable for using lard or signal oil, and only such oil shall be used therein. All refuse and waste shall be promptly removed from the stable in the mine and shall not be allowed to accumulate.

Stables constructed underground after the passage of this Act shall be located not nearer than one hundred and fifty feet to any opening to the mine used as a means of ingress or egress.

Precautions When Approaching Abandoned Workings.

Section 66. Whenever any working place of a mine approaches within one hundred feet of the abandoned workings of another mine as indicated by an accurate survey, or while driving any working place parallel with the workings of such abandoned mine within one hundred feet thereof, and such abandoned mine cannot be explored or when same contains firedamp or water which may inundate such working place, the mine foreman shall not permit such working place to be advanced until a drill hole has been extended not less than twelve feet in the center of such working place and a flank hole not less than twelve feet extending on each rib, starting at the working face after taking out each cut of breaking.

Whenever the limits of an abandoned mine are not known by actual survey the above rule shall apply whenever any working place approaches within two hundred feet of the supposed limits of such abandoned mine.

Timber and Supplies.

Section 67. The operator of any mine shall keep an adequate supply of suitable timber constantly on hand, and deliver to the working place of each miner the props of approximate length, caps and other timbers necessary to securely prop the roof thereof. Such props, caps and other timbers shall be delivered in mine cars at the point where the miner receives his empty cars or unloaded at the entrance to the room.

Hauling Roads.

Section 68. On all hauling roads or entries on which the hauling is done by machinery, where men have to pass to or from their work, and on all entries on which the hauling is done by draft animals, there shall be a clearance on one side of at least two and one-half feet between the car and the rib of such entry. This place shall be kept free from all obstructions and no material shall be placed thereon. In mines already opened prior to the passage of this Act where such clearance does not exist, or in mines where mining conditions prohibit the driving of entries wide enough to give such clearance, places of refuge must be cut in the side wall at least three feet wide, two and one-half feet deep, five feet high and not more than twenty yards apart, but such places of refuge shall not be required in entries from which rooms have been driven at regular intervals not exceeding twenty yards. All such places of refuge must be kept clear of obstructions and no material shall be stored nor allowed to accumulate therein.

Airways.

Section 69. It shall be the duty of the owner, lessee or operator of every coal mine to provide and maintain airways of sufficient dimensions and in no case shall the area of the aircourse be less than twenty-five feet in mines operated on the room and pillar system.

Drainage, Traveling Ways.

Section 70. Standing or stagnant water shall not be allowed to remain in traveling ways, nor shall the intake airways be used by miners or other persons as a depository for excrement or any other refuse. Obstructions of any kind must not be placed in crosscuts, rooms or entries used as main airways. Where necessary to provide a traveling way other than the main entries, slope or drift in any mine for men going to or returning from their work, the same shall be kept clear from debris or obstructions of any kind, and all loose coal, slate and rock overhead or in rib in traveling ways, where miners have to travel to or from their work, must be taken down or carefully secured.

Examination by Foreman.

Section 71. All main airways or traveling ways in any underground workings shall be examined at least twice a week by the mine foreman or some other competent person so directed by said mine foreman and a record of such inspections shall be kept at the mine office.

Removal of Combustible Matter.

Section 72. It shall be the duty of the mine foreman or his assistant in charge of any coal mine where coal dust or any other inflammable material may accumulate to cause the same to be properly saturated with water or with some compounds or chemicals used for such purpose as often as necessary in either aircourses or entries, or all accumulated matter, explosive in its nature, shall be removed from the mine.

Mine Foreman and His Duties.

Section 73. In order to secure efficiency in the coal mines the operator or superintendent shall employ a competent and practical foreman; said mine foreman shall have passed an examination and obtained a certificate of competency as required by this Act, and said mine foreman shall devote the whole of his time to his duties at the mine when in operation.

The mine foreman or his assistant shall visit and examine every working place in the mine at least each alternate day while the miners of such places are or should be at work and shall examine and see that each working place is secured by timbering so that the safety of the mine is assured; he shall see that a sufficient supply of timbers and material is always on hand at the working places in compliance with this Act.

When the mine foreman is personally unable to carry out the requirements of this Act as pertaining to his duties, on account of sickness or of other unavoidable conditions, a competent person shall be appointed to act in his place. The said person so appointed shall possess a certificate of competency, either as mine foreman or mine examiner as provided for in this Act, or shall receive a permit to act as such from the State Coal Mine Inspector's office within thirty days after taking charge.

Whenever such mine foreman, his assistant or assistants, shall have an unsafe place reported to him or them, he or they shall order and direct that the same be placed in a safe condition and until such is done no person or persons shall enter such unsafe place except for the purpose of making it safe.

Mine Examiners and Their Duties.

Section 74. A mine examiner shall be required at all coal mines generating dangerous and explosive gases.

His duty shall be to visit the mine before the men are permitted to enter it and, first, he shall see that the air current is traveling in its proper course and quantity. He shall inspect all places where

men are expected to pass or to work and observe if there are any recent fall or obstructions in rooms and roadways or accumulations of firedamp or other unsafe conditions.

He shall especially examine the edges and accessible parts of recent falls and old gobs and aircourses. As evidence of such examination he shall mark with chalk upon the face of the coal his initial and the date of the month and year; if there is any standing gas discovered he shall leave a danger signal across every entrance to such place.

He shall make a report on a blackboard provided on the outside of the mine, or at some other convenient place, for that purpose and arranged so that the men can inspect it while passing to their work showing the conditions of the mine as to the presence of firedamp, and indicating the place or places where present if any is present, before he permits any person or persons to enter the mine. He shall complete his inspection before the time for the day shift men to go to work and shall personally check each miner or loader into the mine, advising each as to the condition of his working place and holding back any man whose working place is in dangerous condition. He shall return to the mine with such miners or loaders thus held back and remain there attending to the removal of any standing gas.

He shall examine parts of the mine not in actual course of working and available, not less than once in each three days. He shall see that every part of the mine is kept free from standing gas and all old workings are properly fenced off. He shall examine the mine on idle days and Sundays if any men are required to work in any part of it, and, if any time elapse between the day turn leaving and night turn starting, the places to be worked by night turn must be examined by him with a safety lamp and reported safe before persons go to them. He shall make a daily record of the conditions of the mine as he has found them, in a book kept for that purpose, which shall be preserved in the office of the company. No miner or loader, when advised by the mine examiner that his working place is dangerous, shall leave the bottom of the shaft or the main partings on slopes or drifts until accompanied by the mine examiner.

Safety Lamps.

Section 75. At any mine where firedamp or other explosive gases are being generated so as to require the use of safety lamps in any part thereof the operator of such mine, upon receiving notice from the State Coal Mine Inspector or the mine examiner that one or more lamps are necessary to the safety of the men in such mine, shall at once procure and keep for use such number of the most improved safety lamps as may be necessary. All safety lamps used for working therein shall be the property of the operator and shall remain in the custody of the mine foreman or other competent person, who shall clean, trim and fill, examine and deliver the same, locked and in safe condition, to the men when entering the mine, and shall receive the same from the men at the end of their shift. Persons using such

lamps shall be responsible for the conditions and proper use of safety lamps while in their possession.

Only Safety Lamps to Be Used.

Section 76. In every working approaching any place where there is likely to be an accumulation of explosive gases, or in any working where danger is imminent from explosive gases, no light or fire other than a locked safety lamp shall be allowed or used.

Keys for Safety Lamps.

Section 77. No one except a duly authorized person shall have in his possession a key or other contrivance for the purpose of unlocking any safety lamp in any mine where locked safety lamps are used. No lucifer matches or any other apparatus for striking light shall be taken into said mine or parts thereof.

Firing of Blasts Where Safety Lamps Are Used.

Section 78. In any mine where locked safety lamps are used no blast shall be fired in such portion of the mine, except by permission of the mine foreman or his assistants, and before a blast is fired the person in charge must examine the place and adjoining places and satisfy himself that it is safe to fire such blast before such permission is given.

Storing of Explosives in Mines.

Section 79. No workman shall have at any time more than one twenty-five pound keg of black powder in the mine nor more than five pounds of high explosives. Every person who has powder or other explosives in a mine shall keep it or them in a wooden or metallic box or boxes, securely locked, and said boxes shall be kept at least five feet from the track and no two powder boxes shall be kept within twenty-five feet of each other nor shall black powder and high explosives be kept in the same box.

Manner of Handling Explosives.

Section 80. Whenever a workman is about to open a box or keg containing powder or other explosives and while handling the same he shall place and keep his lamp at least five feet distant from such explosive, and in such position that the air current cannot carry sparks to it, and no person shall approach nearer than five feet to any open box containing powder or other explosives with a lighted lamp, lighted pipe or other thing containing fire.

Copper Tools.

Section 81. In the process of charging and tamping a hole, no person shall use an iron or steel pointed needle. The needle used in preparing a blast shall be made of copper and the tamping bar shall be tipped with at least five inches of copper. Some soft material must always be placed next the cartridge or explosive.

System of Blasting.

Section 82. A workman who is about to explode a blast with a squib shall not shorten the match, saturate it with oil, or ignite it except at the extreme end; he shall see that all persons are out of danger from probable effects of such shots, and shall take measures to prevent any one from approaching by shouting "Fire" immediately before lighting the fuse or squib.

When firing shots in close proximity to other workmen on rib or in crosscut driven for air or other purposes, he or they, firing such shots, shall notify in person or by signals the workmen in adjoining rooms or other place or entry.

When a squib is used and a shot misses fire no person shall return until five minutes shall have elapsed. When a fuse is used and a shot misses fire no person shall return until one hour for each foot of fuse shall have elapsed. When it is necessary to tamp dynamite, nothing but a wooden tamper shall be used.

No hole shall be drilled to a greater depth than the cut or shearing, neither shall fine coal, coal dust or any combustible material be used for tamping any hole.

No workman shall put off any blast in any mine known as a "following shot."

At all coal mines the firing of shots shall be restricted to a specific time at the end of each shift, except that in entries, slants and doom necks, when necessary, one snubbing shot may be fired in each at the middle of the shift. No miner shall fire a shot until the time appointed for him to do so and then only in such rotation as designated by the proper authority. After each blast he shall exercise great care in examining the roof and coal and shall secure them safely before beginning to load coal. Where shooting is done by shift work the same precaution shall be used by some person or persons designated by the operator.

When drawslate is over the coal the miner shall not go underneath the drawslate until it is made safe from falling by securely posting it, and he shall not remove the posts until the coal is removed and he is ready to take down the drawslate. He shall not place in the gob or refuse pile any fine coal or coal dust but shall load same into cars. When more than one shot is to be fired at the same time with fuse, in the same working place, different lengths of fuse shall be used so as to prevent any possibility of the shots going off simultaneously.

Care of Working Places.

Section 83. Each miner shall examine his working place upon entering the same and shall not commence to mine or load until it is made safe. He shall be very careful to keep his working place in safe condition at all time.

Should he at any time find his place becoming dangerous from any cause or condition, to such an extent that he is unable to take care of the same personally, he shall at once cease work and notify the mine foreman, or his assistant as provided for hereinbefore in this Act, of such danger, and upon leaving such place he shall place some

plain warning at the entrance thereto to warn others from entering into said danger and he shall not return to his place until ordered to do so by the mine foreman or his assistant. Each miner, or other person employed in a mine, shall securely prop the roof of the working place therein under his control, and shall obey any order or orders given by the superintendent or mine foreman relating to the width of his working place or safety of the same. Such miner or other person shall not be held to have violated the provisions of this section if the owner, lessee, agent, superintendent or mine foreman fail to supply the necessary props, caps, timbers or necessary material as provided for in this Act.

Each miner or other person shall avoid waste of props, caps, timber or other material. When he has props, caps, timber or other material unsuited for his purpose he shall not cover them up or destroy them but shall place same near the track where they can be readily seen.

Duties of Machine Men.

Section 84. Machine runners and helpers shall use care while operating mining machines. They shall not operate a machine unless the shields are in place and shall warn all persons not engaged in the operating of a machine of the danger in going near a machine while in operation, and shall not permit such persons to remain near the machine while in operation. They shall examine the roof of the working place and see that it is safe before starting to operate the machinery. They shall not move the machine while the cutter chain is in motion.

When connecting the power cable to electric wires they shall make the negative or grounded connections before connecting to the positive and, when disconnecting the power cable, shall disconnect from the positive line before disconnecting the negative, or grounded. When positive feed wires extend into rooms they shall connect such wires to the positive wire on the entry before connecting the power cable and as soon as the power cable is disconnected shall disconnect such wire from the wire on the entry. They shall use care that the cable does not come in contact with metallic rails of the track and shall avoid, where possible, leaving the cable in water. If any machine men remove props which have been placed by the miner for the security of the roof, they shall reset such props as promptly as possible.

Duties of Motormen, Trip Riders and Drivers.

Section 85. Motormen and trip riders shall use care in handling the motors and cars and shall see that signals or markers, as provided for, are used as provided, and shall be governed by the speed provided for in this Act in handling cars. They shall not run the motors with the trolley ahead of the motors, except in case where they cannot do the alternative, and then only at a speed of two miles an hour. They shall warn persons forbidden to ride on the motors or cars, and shall not permit such persons to ride on motors or cars contrary to the provisions of this Act.

Drivers shall use care in handling cars, especially when going down extreme grades and at junction points.

Motormen, trip riders and drivers in charge of haulage trips passing through doors used as a means of directing the ventilation, shall see that such doors are closed promptly after the trip passes through.

Duties of Other Employees.

Section 86. No person shall enter a mine generating firedamp so as to be detected by a safety lamp until the mine examiners make a report on the blackboard for that purpose as hereinbefore provided for in this Act.

No person, unless accompanied by the mine examiner, shall go beyond a danger signal until all standing gas discovered has been removed or diluted and rendered harmless by a current of air. Any person being ordered to withdraw by the mine foreman or mine examiner from the mine on account of the interruption of the ventilation shall not re-enter the mine until given permission to do so by the mine foreman.

No person other than the mine examiner shall remove any caution board or danger signal placed at the entrance to any working place or at the entrance to any old workings in the mine.

No person shall erase or change a mark of reference or monument made in connection with a measurement; change marks or dates or any caution board, or erase or change the dates at room or entry face, when made by the mine examiner; change the checks on cars, wrongfully check a car or do any act with intent to defraud. No person shall take a lighted pipe or other thing containing fire, except lanterns as provided for in this Act, into any underground stable or barn.

No person shall place refuse in or obstruct any airway or break-through used as an airway. No workman or other person shall injure a water guage, barometer, aircourse, brattice equipment, machinery or livestock; obstruct or throw open any airway; handle or disturb any part of the machinery of the hoisting engine of a mine; open a door of a mine and neglect to close it; endanger the miners or those working therein; disobey an order given in pursuance of law, or do a wilful act whereby the lives and health of persons working therein or the security of a mine or machinery connected therewith may be endangered.

Persons Permitted to Ride on Haulage Trips.

Section 87. No person or persons except those in charge of trips, superintendents, mine foremen, mine examiners, electricians, mechanics and blacksmiths, when required by their duty, shall ride on haulage trips, except where by mutual agreement in writing between the superintendent or agent and the employees a special trip of empty cars is run for the purpose of taking employees into or out of the mine, or empty cars are attached to loaded trips, which shall not be run at a speed exceeding six miles per hour.

Employees Shall Not Loiter Nor Use Intoxicants Around the Mine.

Section 88. Each employee of a mine shall go to or from his place of duty by the traveling ways provided; shall not travel around the mine or the buildings, where duty does not require, and when not on duty shall not loiter at, in or around the mine, the buildings or machinery connected therewith, except by permission of the owner, lessee, operator, superintendent or foreman.

No person shall go into or around a mine, the buildings or the machinery connected therewith, while under the influence of intoxicants. No person shall use, carry or have in his possession, at, in or around a mine, the buildings or the machinery connected therewith, any intoxicants.

Top and Bottom Men.

Section 89. At every shaft, operated by steam or other power, the operator must station at the top and the bottom of such shaft a competent man, charged with the duty of attending to signals, preserving order and enforcing rules, during the carriage of the men on cages.

Lights on Landings.

Section 90. Whenever the hoisting or lowering of men occurs before daylight or after dark, or when the landing at which men leave or take the cage, car or cars is at all obscured by steam or otherwise, there must always be maintained at such landing a light sufficient to show the landing and surrounding objects distinctly. Lights shall also be maintained at each landing and the bottom of all shafts while men are at work underground.

Regulations for Hoisting or Lowering of Men.

Section 91. Cages in shafts, or cars in any slope, on which men are riding shall not be lifted or lowered at a rate of speed greater than six hundred feet per minute.

No more than twelve (12) persons shall ride on any cage or car at any one time except where specially constructed man cars are used on a slope.

No person shall carry any explosives, tools, timber or other material with him on a cage, car or cars in motion, in any shaft or any slope or incline plane while the men are being hoisted or lowered, except for use in repairing the shaft, slope or incline plane.

No cage having an unstable or self dumping platform shall be used for the carriage of men or materials unless the same is provided with some device by which the platform can be securely locked, and unless it is so locked whenever men or materials are being conveyed thereon.

The rope rider on any slope or incline plane shall, during working hours, see that all ropes and signals are in perfect working order, and, if he perceives anything wrong, he shall at once report the same to the mine foreman or his assistant.

He must be cautious when men are being hoisted out of or lowered into any slope and shall see that all safety appliances are properly attached and that all cars are securely coupled. He shall pay strict attention to all signals.

When more than twelve persons get on a cage or on one car on a slope or incline plane, except as above provided for, the bottom man, top man, or rope rider in charge of the lowering and hoisting of such persons shall order a sufficient number to get off to reduce the number to twelve persons on the cage or car, and the person or persons so ordered shall immediately comply.

The car or cars used to hoist or lower men into or out of any slope or on any plane shall be connected by safety chains, or some safety appliance must be used to maintain the trip in case of breakage of coupling or other connection.

Rights of Men to Come Out.

Section 92. Whenever men who have finished their day's work, or who have been prevented from further work for any cause, shall come to the bottom of any shaft to be hoisted out, a cage shall be given them for that purpose, unless there is an available exit by slope or stairway in an escapement shaft, and providing there is no coal at the bottom to be hoisted. Whenever the designated number of persons for a cage load shall arrive at the bottom of the shaft in which persons are regularly hoisted or lowered they shall be furnished with an empty cage and be hoisted.

Stretchers, Blankets, Etc.

Section 93. At every mine where men are employed underground it shall be the duty of the operator thereof to keep always on hand and at some readily accessible place a properly constructed stretcher, a woolen and waterproof blanket, and roll of bandages, in good condition and ready for immediate use, for binding, covering and carrying any one who may be injured at the mine; also to provide a comfortable apartment near the mouth of the mine in which any one so injured may rest while awaiting transportation home, and to provide for the speedy transportation of any one injured in such mine to his home. When more than one hundred and fifty men are employed in any one mine two stretchers, two woolen and two waterproof blankets, with a corresponding supply of bandages, shall be provided and kept on hand. There shall also be provided and kept in store a suitable supply of linseed or olive oil for use in case men are burned by an explosion or otherwise.

Oils to Be Used in Coal Mines.

Section 94. (a) No person, firm or corporation shall compound, sell or offer for sale, for illuminating purposes in any coal mine, any oil other than oil composed of not less than eighty-four per cent of pure animal or vegetable oil, or both, and not more than sixteen per cent pure mineral oil, the gravity of such animal or vegetable oil shall not be less than twenty-one and one-half and not more than twenty-two and one-half degrees Baume scale measured by Tagliabue or other standard hydrometer, at a temperature of sixty degrees Fahrenheit; the gravity of such mineral oil shall not be less than thirty-four and not more than thirty-six degrees Baume scale, measured by Tagliabue or other standard hydrometer, at a temperature of sixty degrees Fahrenheit.

heit, and gravity of the mixture shall not exceed twenty-four degrees Baume scale, measured by Tagliabue or other standard hydrometer, at a temperature of sixty degrees Fahrenheit. It is provided, however, that any material that is as free from smoke and bad odor, and of equal merit as an illuminant as pure animal or vegetable oil, may be used at the pleasure of mine operators and miners.

(b) Each person, firm or corporation compounding oil for illuminating purposes in a coal mine or mines, shall, before shipment thereof is made, securely brand, stencil or paste upon the head of such barrel or package, a label which shall have plainly printed, marked or written thereon the name and address of the person, firm or corporation compounding the oil therein contained, the name and address of the person, firm or corporation having purchased same, the date of shipment, the percentage and gravity in degrees Baume scale, at a temperature of sixty degrees Fahrenheit, of each of the component parts of animal, vegetable and mineral oil contained in the mixture, and the gravity in degrees Baume scale of the mixture, at a temperature of sixty degrees Fahrenheit.

Each label shall have printed thereon, over the facsimile signature of the person, firm or corporation having compounded the oil, the following: "This package contains oil for illuminating purposes in coal mines in the State of Montana, and the composition thereof as shown herein is correct."

(c) No person, firm or corporation shall sell or offer for sale any oil for illuminating purposes in any coal mine unless the barrel or package in which such oil was received bears the label of the compounder as provided in this Act.

Each person, firm or corporation selling or offering for sale any oil for illuminating purposes in any coal mine, shall, upon request of the State Coal Mine Inspector, or of any officer or duly authorized agent of any owner or lessee of a coal mine located within five miles of the point where such oil is offered for sale, or of any coal miner, submit such oil for examination, and upon request give a sample of such oil from one or more original containers selected by such inspector, officer, agent or miner for the purpose of making a test thereof.

(d) No person shall adulterate any oil, either before or after taking same from original containers, and shall not alter, transfer or re-use any label placed upon any container.

(e) No person shall use for illuminating purposes in any coal mine any oil other than oil specifically provided for in this Act. Each person while in a coal mine shall, upon request of the Inspector of Mines or any officer or duly authorized agent of the owner or lessees, submit his lamp and supply of oil for examination and upon request give sample of oil for purpose of making test thereof, and state from whom purchased.

The provisions of this Act relating to compounding, sale and use of oil for illuminating purposes in coal mines shall apply to oil used in lamps for open lights only, but do not apply to drivers, rope riders

or motormen while acting in such capacity. The oil used in safety lamps may be of such composition as will best serve the purpose.

Boundary Lines.

Section 95. In no case shall the workings of a coal mine be driven nearer than ten feet to the boundary line of the coal rights pertaining to said mine, except for the purpose of establishing connecting workings between properties owned by the same person or an underground communication between contiguous mines as provided for elsewhere in this Act.

Notice to Inspectors.

Section 96. Immediate notice must be conveyed to the State Coal Mine Inspector by the operator interested:

First: Whenever an accident occurs whereby any person receives serious or fatal injury.

Second: Whenever work is commenced to sink a shaft, slope or drift, either for hoisting or escapement purposes.

Third: Whenever it is intended to abandon any mine or to reopen any abandoned mine.

Fourth: Upon the appearance of any large body of firedamp in mine, whether accompanied by explosion or not, and upon the occurrence of any serious fire within the mine or on the surface around the mine.

Fifth: When the workings of any mine are approaching near any abandoned mine believed to contain accumulation of water or gas.

Sixth: Upon the accidental closing or intended abandonment of any regularly established passageway to an escapement outlet.

Duty of Inspectors.

Section 97. When advised by an operator of any accident in a coal mine involving loss of life or serious personal injury the State Coal Mine Inspector shall, if he deem it necessary from the facts reported, and in all cases of loss of life, immediately go to the scene of said accident or send some competent person authorized by him. It shall, moreover, be the duty of every operator of a coal mine, or his agent, to make and preserve for the information of the inspector, upon uniform blanks furnished by the said inspector, a record of all injuries sustained by any employees in the pursuance of their regular occupation.

The State Coal Mine Inspector may also make any original or supplementary investigation which he may deem necessary as to the nature and cause of any accident within his jurisdiction and shall make a record of the circumstances attending the same and of the result of his investigations for preservation in the files of his office.

To enable him to make such investigation he shall have the power to compel the attendance of the witnesses and to administer oaths or affirmations to them, and the cost of such investigation shall be paid by the county in which such accident has occurred in the same manner as the cost of coroner's inquest is paid.

Coroner's Inquest.

Section 98. If any person is killed by any explosion or other accident, the operator must also notify the coroner of the county, his authorized deputy or, in the absence of either or in the inability of either to act, any justice of the peace of said county for the purpose of holding an inquest concerning the cause of such death. At such inquest the State Coal Mine Inspector, his deputy or authorized representative, shall offer such testimony as he may be possessed of, and he may question or cross question any witness appearing in the case, and the owner, agent or manager of the coal mine, either in person or by counsel, shall also be at liberty to examine or cross examine any witness at any such inquest.

Any person having personal interest in or employed in the management of the mine in which the accident occurred shall not be qualified to serve on the jury empaneled on the inquest; and it shall be the duty of the constable or other officer not to summon any person disqualified under this provision, and it shall be the duty of the coroner not to allow any such person to be sworn or sit on the jury; nevertheless, when possible, one-third of the jurymen shall be miners.

Unless the State Coal Mine Inspector, or some person authorized by him, is present at an inquest held upon the body of any person, where death may have been caused by such accident, the coroner shall adjourn the same and, by written notice or telegram delivered or sent to the State Coal Mine Inspector at least two days before holding the adjourned inquest, give notice of the time and place of the holding of the same. Before such adjournment the coroner, his authorized deputy or the justice of the peace, may take evidence to identify the body and order the interment thereof.

Code of Signals at Coal Mines.

Section 99. At any coal mine operated by shaft more than one hundred feet in depth, or by slope, the manner of signalling to and from the bottom man, the top man, the rope riders and the engineer shall consist of wires or a tube or tubes through which signals shall be communicated by electricity, compressed air or other pneumatic devices.

The following signals are provided for use at coal mines where signals are required:

One ring or whistle—One ring or whistle shall signify to hoist coal or the empty cars or cage, and also to stop either when in motion.

Two rings or whistles—Two rings or whistles shall signify to lower cage or car.

Three rings or whistles—Three rings or whistles shall signify that men are coming up; when return signal is received from engineer, either by bell, whistle or slight movement of the trip, men will get on cage or cars and the cager or rope rider shall ring or whistle "one" to start.

Four rings or whistles—Four rings or whistles shall signify to hoist slowly, implying danger.

Five rings or whistles—Five rings or whistles shall signify accident in the mine and call for stretchers.

From top to bottom—One ring or whistle shall signify all ready get on cage or cars.

From top to bottom—Two rings or whistles shall signify to send empty cages or cars.

Provided: That the management of any mine may, with the consent of the State Coal Mine Inspector, add to or change this code of signals at their discretion for the purpose of increasing its efficiency or of promoting the safety of the men in said mine, but, whatever code may be established and in use at any mine it must be approved by the State Coal Mine Inspector, and shall be conspicuously posted at the top and at the bottom of every shaft or slope, and at the landing place on all rope haulage systems, also in all engine rooms for the information and instruction of all persons. In any coal mine, where more than fifty men are employed underground, one or more telephones shall be installed communicating with the surface.

Duties of Hoisting Engineers.

Section 100. The hoisting engineer on any shaft, slope or drift at any mine shall be in constant attendance at his engine during working hours when there are workmen underground. He shall not permit any one to enter or to loiter in the engine room except those authorized by their positions or duties to do so, and he shall hold no conversation with any officer of the company or other person, or leave his engine, while in motion or while his attention is occupied with the signals. A notice to this effect shall be posted on the door of the engine house.

The hoisting engineer must thoroughly understand the established code of signals, and such signals must be delivered in the engine room in a clear and unmistakable manner, and he shall not recognize any signals other than those provided for in this Act, or such as have been approved by the State Coal Mine Inspector; and when he has the signal that men are on the cage, car or cars, he must work his engine only at the rate of speed herein provided for by this Act. He shall permit no one to handle or meddle with any machinery under his charge, nor suffer any one who is not a certified engineer to operate his engine except for the purpose of learning to operate it or repair same, and then only in the presence of the engineer in charge and when men are not on the cages, car or cars.

Qualifications of Miners.

Section 101. Each person desiring to work by himself at mining or loading shall first produce satisfactory evidence, in writing, to the mine foreman of the mine in which he is employed, or to be employed, that he has worked at least nine months with, under the direction of, or as a practical miner; provided, however, that if the mine in which such person is to be employed generated explosive gas or firedamp, he shall have worked not less than twelve months with, under the direction of, or as a practical miner. Until a person has so satisfied

the mine foreman of his competency, he shall not work or be permitted to work at mining or loading unless accompanied by a miner holding the foregoing qualifications.

Operators Must Make Reply to Statistical Inquiry.

Section 102. Every coal mine operator, whether person, co-partnership or corporation, shall within thirty days after receipt of blanks from the State Coal Mine Inspector asking for statistical data relative to any coal mine operated by the person, co-partnership or corporation addressed, fill in the blanks of such forms, answering all interrogations correctly and mail the same to the State Coal Mine Inspector.

Penalties.

Section 103. If any operator, company or corporation neglects to comply with, or violate, the requirements of this Act, either in part or in whole, or if any owner, operator, manager, superintendent, mine foreman or his assistant coerces, intimidates or causes any employee to do the things prohibited, or causes them to do as provided against in this Act, such operator, company, corporation, manager, superintendent, mine foreman or his assistant shall be liable to a penalty of twenty-five dollars for each and every day during which the offense continues; proceedings to be instituted in any court of competent jurisdiction in the county in which such offense is committed.

In case of the failure of any operator, company or corporation to comply with the provisions in this Act in relation to the sinking of escapement shaft or the ventilation of mines the State Coal Mine Inspector, through the County Attorney for the county in which such failure occurs, or through any other attorney in case the County Attorney fails to act promptly, shall proceed against such operator by injunction, without bond, to restrain him from continuing to operate such portion of the mine until all legal requirements have been complied with.

When the State Coal Mine Inspector shall discover that any section of this Act, or any part thereof, is being neglected or violated he shall order immediate compliance therewith and in case of continued failure to comply shall, through the County Attorney, or any other attorney in case of his failure to act promptly, take the necessary legal steps to enforce compliance therewith through the penalties herein prescribed.

If it becomes necessary, through refusal or failure of the County Attorney to act, for any other attorney to appear for the State in any suit involving the enforcement of any of the provisions of this Act, reasonable fees for the services of such attorney shall be allowed by the County Commissioners in and for the county in which such proceedings are instituted.

Any employee engaged at work in or around any coal mine in the State of Montana, or any other person, who violates any part of this Act shall for each offense be liable to a penalty not exceeding five dollars, or in default of payment shall be imprisoned in the county jail for a period of time not exceeding ten days, proceedings to be instituted in any court of competent jurisdiction in the county in which such offense is committed. Any person, firm or corporation who com-

pounds, sells or offers for sale to dealers any oil for illuminating purposes in any coal mine in this State, contrary to the provisions of Section 97 of this Act, shall, upon conviction thereof, be fined not less than fifty dollars nor more than one hundred dollars and for the second offense, or any subsequent offense, shall be fined not less than one hundred dollars or imprisonment not less than thirty days nor more than sixty days, or both at the discretion of the court, proceedings to be instituted in any court of competent jurisdiction.

Any person, firm or corporation who sells, or offers for sale, to any employee of a coal mine any oil for illuminating purposes in a mine contrary to the provisions of Section 97 of this Act, shall, upon conviction thereof, be fined not less than twenty-five dollars or more than fifty dollars, and for a second or subsequent offense shall be fined not less than twenty-five dollars and not more than fifty dollars, or imprisonment not less than ten days and not more than twenty days, or both at the discretion of the court, proceedings to be instituted in any court of competent jurisdiction.

Definitions.

Section 104. (a) "Mine." In this Act the words "mine" and "coal mine" used in their general sense are intended to signify any and all underground parts of the property of a mining plant which contribute, directly or indirectly, under one management, to the mining or handling of coal.

(b) "Excavations or Workings." The words "excavations" and "workings" signify any and all parts of a mine excavated or being excavated, including shafts, slopes, tunnels, entries, rooms and working place, whether abandoned or in use.

(c) "Shafts." The term "shaft" means any vertical opening through the strata which is or may be used for the purpose of ventilation or escapement, or for hoisting or lowering of men or material in connection with the mining of coal.

(d) "Slope" or "Drift." The terms "slope" and "drift" mean respectively an incline or horizontal way, opening or tunnel to a seam of coal to be used for the same purpose as a shaft.

(e) "Following Shot." A "following shot" is a shot which is dependent in its action on the result of another shot.

(f) "Operator." The term "operator" as applied to the party in control of a mine under this Act, signifies the person, firm or body corporate who is the immediate proprietor as owner or lessee of the plant, and as such responsible for the condition and management thereof.

(g) "Mine Foreman." The "mine foreman" is a person who is charged with the general direction of the underground work, or both the underground work and the outside work of any coal mine, and who is commonly known and designated as "mine boss."

(h) "Mine Examiner." The "mine examiner" is the person charged with the examination of the condition of the mine before the miners are permitted to enter it, and who is commonly known as the "fire boss."

Section 105. The following sections, 1679, 1680, 1681, 1682, 1683, 1684, 1685, 1686, 1687, 1688, 1689, 1690, 1691, 1692, 1693, 1694, 1695, 1696, 1697, 1698, 1699, 1700, 1701, 1702, 1703, 1704, 1705, 1706, 1707, 1708, 1709, and 1710, 2023 of the Revised Codes of the State of Montana, and Chapters 64 and 69 of the Laws of 1909, of the State of Montana, are hereby expressly repealed, and all other Acts or parts of Acts in conflict herewith.

Section 107. All Acts and parts of Acts in conflict with this Act are hereby repealed.

Section 108. This shall take effect and be in force from and after (90) ninety days from and after its passage and approval by the Governor.

Approved March 7th, 1911.

Depositing Coal Slack in Streams Prohibited.

(Revised Codes.)

Section 8557. Depositing Coal Slack in Streams. All persons owning or having in operation, and all persons who may hereafter own or put in operation in the State of Montana, either in person or by agent, any coal mine on any stream containing fish or water which is used for domestic purposes, or for irrigation, are hereby required to so care for any coal slack or other refuse emanating from such coal mining operation as to prevent the same from mingling with the waters of such streams.

Section 8558. Same—Penalty. All persons owning or operating, or who may hereafter own or operate any coal mine on any stream containing fish or water which is used for domestic purposes, or for irrigation, who shall dump, cart or deposit, or cause or suffer to be deposited in such stream any such coal slack or other refuse emanating from such coal mining operation, shall be deemed guilty of a misdemeanor, and, upon conviction thereof before any court of competent jurisdiction, shall be fined in any sum not less than two hundred (\$200) dollars nor more than five hundred (\$500) dollars for each and every offense.

DIVISION III.

LAWS APPLICABLE TO BOTH QUARTZ AND COAL MINING.

(Article V, Part III, Title VII, Chapter II, Revised Codes, 1907)

Chapter 1.

Hours and Regulation of Labor.

Section 1734. Hours of Labor, Hoisting Engineers.

1735. Penalties.

1736. Hours of Labor, Underground Mines.

1737. Same, Smeltermen.

1738. Penalty.

1739. Hours of Labor, Municipalities, Mines, Mill and Smelters.
1740. Penalty.

Constitution.

Article XVIII, Section 4. A period of eight hours shall constitute a day's work on all works or undertakings carried on or aided by any municipal, county or State government, and on all contracts let by them, and in mills and smelters for the treatment of ores, and in underground mines.

(Revised Codes.)

Section 1734. Hours of Labor—Hoisting Engines. That on and after the first day of May, A. D. 1903, it shall be unlawful for any person or persons, company or corporation, to operate or handle, or to induce, persuade or prevail upon any person or persons to operate or handle, for more than eight hours in twenty-four hours of each day, any hoisting engine at or in any mine. This Act shall apply only to such plants as are in continuous operation or are operated sixteen or more hours in twenty-four hours of each day, or at or in any mine where said hoisting engine develops fifteen or more horse power, or at or in any mine where said hoisting engine develops fifteen or more horse power, or at or in any mine wherein there are fifteen or more men employed underground in twenty-four hours of each day. Provided, however, that the provisions of this Act shall not apply to any person or persons operating any hoisting engine more than eight hours in each twenty-four hours for the purpose of relieving another employee in case of sickness or other unforeseen cause or causes.

Section 1735. Penalties. Any person or persons, company or corporation, who shall violate any of the provisions of this Act, shall, upon conviction, be punished by a fine of not less than ten (\$10.00) dollars, nor more than one hundred (\$100.00) dollars; and each and every day that such person or persons, company or corporation may continue to violate any of the provisions of this Act shall be considered a separate and distinct offense and shall be punishable as such.

Section 1736. The period of employment of working men in all underground mines or workings, including railroad or other tunnels, shall be eight (8) hours per day, except in cases of emergency where life and property are in imminent danger.

Section 2. This Act shall be in full force and effect from and after its passage and approval.

Amended, Laws 1911, page 25.

Section 1737. Same—Smeltermen. The period of employment of working men in smelters, stamp mills, sampling works, concentrators, and all other institutions for the reduction of ores, and refining of ores or metals, shall be eight (8) hours per day, except in cases of emergency where life or property are in imminent danger.

Section 1738. Penalty. Any person or persons, body corporate, agent, manager or employer who shall violate any of the provisions of

Sections 1736 or 1737 of this Act shall be deemed guilty of a misdemeanor, and upon conviction thereof, shall, for each offense, be subject to a fine of not less than one hundred dollars nor more than five hundred dollars, or by imprisonment in the county jail for a period of not less than one (1) month, nor more than six (6) months, or by both such fine and imprisonment.

Section 1739. Hours of Labor for Municipalities, Mines, Mills and Smelters. A period of eight (8) hours shall constitute a day's work on all works or undertakings carried on or aided by any municipal, county or State government, and on all contracts let by them, and in mills and smelters for the treatment of ores, and in underground mines, and in the washing, reducing or treatment of coal.

Section 1740. Penalties. Every person, corporation, stock company or association of persons who violate any of the provisions of Section 1739 of this Act shall be guilty of a misdemeanor, and upon conviction thereof shall be punished by a fine of not less than one hundred (\$100) dollars nor more than five hundred (\$500) dollars, or by imprisonment in the county jail for not less than thirty days nor more than six months, or by both such fine and imprisonment.

Chapter 2.

Prohibitions Against Child Labor.

(Article IV, Part III, Title VII, Chapter II, Revised Codes.)

Section 1746. Employment of Children Under Sixteen Years in Certain Occupations Prohibited.

1747. Liability of Parent.

1748. Record of Children Under Sixteen Years of Age.

1749. Age Certificate.

1750. Enforcement of Act.

1751. Penalties.

1752. Prohibiting Employment of Children in Mines.

1753. Permitting Employment—Misdemeanor.

1754. Penalties.

Constitution.

Article XVIII, Section 3. It shall be unlawful to employ children under the age of sixteen (16) years of age in underground mines.

(Revised Codes.)

Section 1746. Employment of Children in Certain Occupations Prohibited. Any person, company, firm, association, or corporation engaged in business in this State, or any agent, officer, foreman or other employee having control or management of employees or having the power to hire or discharge employees, who shall knowingly employ or permit to be employed any child under the age of sixteen years, to render or perform any service or labor, whether under contract of

employment or otherwise, in, on or about any mine, mill, smelter, workshop, factory, steam, electric, hydraulic, or compressed air railroad, or passenger or freight elevator or where any machinery is operated, or for any telegraph, telephone or messenger company, or in any occupation not herein enumerated which is known to be dangerous or unhealthy, or which may be in any way detrimental to the morals of said child, shall be guilty of a misdemeanor and punishable as hereinafter provided.

Section 1747. Liability of Parent. Any parent, guardian or other person having the care, custody or control of any child under the age of sixteen years, who shall permit, suffer or allow any such child to work or perform service for any person, company, firm, association or corporation doing business in this State, or who shall permit or allow any such child over whom he has such care, custody or control, to retain such employment as is prohibited in Section 1746 of this Act, whether under contract of employment or not, shall be guilty of a misdemeanor and punishable as hereinafter provided.

Section 1748. Record of Children Under Age of Sixteen Years. The Commissioner of the Bureau of Agriculture, Labor and Industry shall compile and preserve in his office from reports made to him by the County Superintendent of Schools, as otherwise provided, a full and complete list of the name, age, date of birth and sex of each child and the names of the parents or guardians of each child under the age of sixteen years who is now or may hereafter become a resident of this State, and such list shall be the official record of the age of children in this State.

Section 1749. Age Certificate. Upon attaining the age of sixteen years any child may make application to the Commissioner of the Bureau of Agriculture, Labor and Industry for an age certificate, which must be presented to any employer with whom such child may seek employment. The employer, if such employment be given, must countersign the certificate, and return the same to the commissioner of said bureau, who shall keep the same on file in his office. Any person, firm, company, association or corporation who employs or permits to be employed in any occupation prohibited in Section 1746 of this Act, any child without such certificate showing the child to be at least sixteen years of age, shall be guilty of a misdemeanor and punishable as hereinafter provided, should such child prove less than 16 years of age.

Section 1750. Enforcement of Act. To enforce this Act the Commissioner of the Bureau of Agriculture, Labor and Industry, the Bureau of Child and Animal Protection and all county attorneys shall, each upon their own volition, or upon the sworn complaint of any reputable citizen that this Act is being violated, make prosecutions for such violations.

Section 1751. Penalties. Every person, firm, company, association or corporation who violates any of the provisions of this Act shall be

guilty of a misdemeanor, and upon conviction thereof shall be punished by a fine of not less than twenty-five dollars nor more than five hundred dollars, or by imprisonment in the county jail for a period of not less than thirty days nor more than six months, or by both such fine and imprisonment.

Section 1752. Prohibiting Employment of Children in Mines. Any person, corporation, stock company or association of persons, owning or operating any underground mine, or any officer, agent, foreman or boss, having the control or management of employees, or having the power to hire or discharge employees, who shall employ, or knowingly permit to be employed any child under the age of sixteen years, for work or service in any such mine, or the underground workings thereof, or permit or allow any such child to render or perform any work or service whatever in such mine, whether under contract of employment or otherwise, shall be guilty of a misdemeanor and punishable as hereinafter provided.

Section 1753. Permitting Employment—Misdemeanor. Any parent, guardian or other person having the care, custody, or control of any child under the age of sixteen years, who shall permit, suffer or allow such child to work in any mine having underground workings, or who shall permit or allow any such child over whom they may have such care, custody or control to retain employment in any such mine, or who, after having knowledge that any such child has taken employment in any such mine, or is performing work or service therein, whether under contract of employment or not, shall fail forthwith to notify the person or corporation owning or operating such mine, or some officer, foreman or employee thereof having the power to hire or discharge employees, of the age of such child, shall be guilty of a misdemeanor and punishable as hereinafter provided.

Section 1754. Penalties. Any person or corporation violating any of the provisions of this Act shall be guilty of a misdemeanor, and upon conviction thereof shall be punished by a fine not less than twenty-five dollars (\$25) nor more than five hundred dollars (\$500), or by imprisonment in the county jail for a period of not less than thirty days nor more than six months, or by both such fine and imprisonment.

Chapter 3.

Personal Injuries—Obligations of Employer.

(Article II, Division III, Part IV, Title VI, Chapter I, Revised Codes.)

Section 5246. Mines, Mills, and Smelters—Vice Principals.

5247. Contract of Insurance Not to Release Employers.

5248. Mining Companies Liable for Negligence of Certain Employees.

5249. Contract of Insurance No Bar to Recovery.

5250. Survival of Action.

Section 5246. Mines, Mills and Smelters—Vice Principals. That every company, corporation, or individual operating any mine, smelter or mill for the refining of ores shall be liable for all damages sustained by an employee thereof within this State, without contributing negligence on his part when such damage is caused by the negligence of any superintendent, foreman, shift boss, hoisting or other engineer, or cranemen.

Section 5247. Contract of Insurance Not to Release Employer. No contract of insurance, relief, benefit or indemnity in case of injury or death, nor any other contract entered into either before or after the injury, between the person injured and any of the employers named in this Act, shall constitute any bar or defense to any cause of action brought under the provisions of this Act.

Section 5248. Mining Companies Liable for Negligence of Certain Employees. That every company, corporation, or individual operating any mine, smelter or mill for the refining of ores shall be liable for any damages sustained by any employees thereof within this State, without contributing negligence on his part, when such damage is caused by the negligence of any superintendent, foreman, shift boss, hoisting or other engineer, or crane men.

Section 5249. Contract of Insurance No Bar to Recovery. No contract of insurance, relief, benefit or indemnity in case of injury or death, nor any other contract entered into before the injury between the persons injured and any of the employers named in this Act, shall constitute any bar or defense to any cause of action brought under the provisions of this Act.

Section 5250. Survival of Action. In case of the death of any such employees in consequence of any injury or damages so sustained, the right of action shall survive and may be prosecuted and maintained by its heirs, or personal representatives.

Chapter 4.

Extortion by Foremen, Etc.

(Part I, Title XIII, Chapter VII, Revised Codes.)

Section 8687. Receipt or Solicitation of Gifts, by Foreman From Employees.

8679. Immunity of Witnesses.

Section 8678. Receipt or Solicitation of Gifts, by Foreman From Employees. That any superintendent, foreman, assistant boss, or any other person or persons, who shall receive, or solicit, or cause to be received or solicited, any sum of money or other valuable consideration, from any person for or on account of the employment, or the continuing of the employment of such person, or of any one else, or for, or on account of any promise, agreement, to employ or to continue to employ, any such person, or any one else, shall be guilty of a

misdemeanor and upon conviction shall be subject to a fine of not more than one thousand (\$1,000) dollars, or undergo an imprisonment in the county jail of not more than one (1) year, or both, at the discretion of the court.

Section 8679. Immunity of Witnesses. No person shall be excused from attending or testifying, or producing any books, papers, documents, or any thing or things before any court, or magistrate upon any investigation, proceeding, or trial, for violation of any of the provisions of this Act, upon the ground, or for the reason that the testimony, or evidence, documentary or otherwise, required of him, may tend to convict him of a crime, or to subject him to a penalty, or forfeiture; but no person shall be prosecuted or subjected to any penalty, or forfeiture, for or on account of any transaction, matter or thing concerning which he may so testify, or produce evidence of documentary or otherwise; and no testimony or evidence so given, or produced, shall be received against him in any civil or criminal proceeding, action or investigation.

Chapter 5.

Company Store Act.

(Part III, Title VII, Chapter II, Article V, Revised Codes.)

Section 1744. Labor—Payment—What Illegal.

1745. Violation of Act—Penalty.

Section 1744. Labor—Payment in Script Prohibited. It shall be unlawful for any person, firm, company, corporation or trust, or the business manager or agent of any such person, firm, company, corporation or trust, to sell, give, deliver or in any way directly or indirectly, to any employed by him, or if in payment of wages due or to become due, any script, token, check, draft, order, credit, or any book of account or other evidence of indebtedness payable to bearer or to his assignees, except as hereinafter provided, but such wages shall be paid only in lawful money of the United States, or by check or draft drawn upon some bank in which such person, firm, company, corporation or trust or the agent or business manager of such person, firm, company, corporation or trust has money upon deposit to cash the same, and no assignment of any wages due or to become due to any employee, shall be made to any person, firm, company, corporation or trust, or the business manager or agent of any such person, firm, company, corporation or trust, or to any one interested directly or indirectly in any firm, company, corporation or trust employing said laborer. And any contract to the contrary shall be void; provided, however, this shall not prevent ranchmen, farmers, lumber camps or mining camps from supplying their employees or paying said employees in other than cash or check where there is no bank or other store than that owned by said employers at which said employees may purchase supplies, or cash their bankable checks received for their labor.

Section 1745. Violation of Act—Penalty. Every person, company, corporation or trust or agent or business manager of such firm, company, corporation or trust who violates any of the provisions of this Act, shall be guilty of a misdemeanor, and upon conviction thereof, shall be subject to a fine of not less than one hundred (\$100.00) dollars, or more than five hundred (\$500.00) dollars or by imprisonment in the county jail of not less than one month nor more than six months, or by both such fine and imprisonment.

DIVISION IV.

MISCELLANEOUS PROVISIONS.

Chapter 1.

Location of Quartz Lode Mining Claims. (Revised Codes.)

- Section 2283. Discovery, Notice, Marking Boundaries, Sinking Shaft.
 2284. Record of Certificate of Location.
 2285. Mill Sites.
 2286. Reclamation of Abandoned Claims.
 2287. Rights of Relocator.
 2288. Amended Location.
 2289. Relocation by Owner.
 2290. Amendment or Relocation Not a Waiver of Acquired Rights.
 2291. Rights of Third Persons Not Affected.
 2292. Validating Locations Heretofore Made.
 2293. Defective Locations Good Against Persons With Notice.
 2294. Effect of Patent.
 2295. Amended Locations.
 2296. Effect of Amended or Additional Declaratory Statement—Record.
 3613. (Political Code, 1895). Placer Locations Heretofore Made, Effect of.
 3614. (Political Code, 1895). Annual Work—Affidavit—Contents—Record.
 3616. (Political Code, 1895). Official Survey—Certificate—Part of Declaratory Statement.

Section 2283. Discovery — Notice — Marking Boundaries — Sinking Shaft. Any person who discovers, upon the public domain of the United States, within the State of Montana, a vein, lode or ledge of rock in place, bearing gold, silver, cinnabar, lead, tin, copper or other valuable deposits, or a placer deposit of gold, or other deposit of minerals having a commercial value which is subject to entry and patent under the mining laws of the United States, may, if qualified by the laws of the United States, locate a mining claim upon such vein, lode, ledge or deposit, in the following manner, viz.:

I. He shall post, conspicuously, at the point of discovery, a written or printed notice of location, containing the name of the claim, the name of the locator (or locators, if there be more than one), the date of the location, which shall be the date of posting such notice, and the approximate dimensions of area of the claim intended to be appropriated.

II. Within thirty days after posting the notice of location, he shall distinctly mark the location on the ground so that its boundaries can be readily traced. It shall be prima facie evidence that the location is properly marked if the boundaries are defined by a monument at each corner or angle of the claim, consisting of any one of the following kinds: (1) A tree at least eight inches in diameter, and blazed on four sides. (2) A post at least four inches square by four feet six inches in length, set one foot in the ground, unless solid rock should occur at a less depth, in which case the posts should be set upon such rock, and surrounded in all cases by a mound of earth or stone at least four feet in diameter by two feet in height. A squared stump, of the requisite size, surrounded by such mound, shall be deemed the equivalent of a post and mound. (3) A stone at least six inches square by eighteen inches in length, set two-thirds of its length in the ground, with a mound of earth or stone alongside at least four feet in diameter by two feet in height, or (4) A boulder at least three feet above the natural surface of the ground on the upper side.

Where other monuments, or monuments of lesser dimensions than those above described, are used, it shall be a question for the jury, or for the court where the action is tried without a jury, as to whether the location has been marked upon the ground so that its boundaries can be easily traced. Whatever monument is used, it must be marked with the name of the claim and the designation of the corner, either by number or cardinal point.

III. Within sixty days after posting such notice, he shall sink a shaft upon the vein, lode or deposit, at or near the point of discovery, to be known as the discovery shaft. Such shaft shall be sunk to the depth of at least ten feet, vertically, below the lowest part of the rim of such shaft at the surface, or deeper if necessary to disclose the vein or deposit located, and the cubical contents of such shaft shall be not less than one hundred and fifty cubic feet; provided, that any cut or tunnel which discloses the vein, lode or deposit located at a vertical depth of at least ten feet below the natural surface of the ground and which constitutes at least one hundred and fifty cubic feet of excavation, shall be deemed the equivalent of such shaft, and, provided also, that where the vein, lode or deposit located is disclosed at a less vertical depth than ten feet, any deficiency in the depth of the discovery shaft, cut or tunnel may be compensated for by any horizontal extension of such working, or by any excavation done elsewhere upon the claim, equalling, in cubical contents, the cubical extent of such deficiency; but in every case at least 75 cubic feet of excavation shall be made at the point of discovery.

Section 2284. Record of Certificate of Location. Within sixty days after posting the notice of location and for the purpose of constituting constructive notice of the location, the locator shall record his location in the office of the County Clerk of the county in which such mining claim is situated. Such record shall consist of a certificate of location containing:

I. The name of the lode or claim.

II. The name of the locator or locators, if there be more than one.

III. The date of location, and such description of said claim, with reference to some natural object or permanent monuments, as will identify the claim.

IV. In the case of a lode claim, the direction and distance claimed along the course of the vein each way from the discovery shaft, cut or tunnel, with the width claimed on each side of the center of the vein.

V. In the case of a placer claim, the dimensions or area of the claim, and the location thereon of the discovery shaft, cut or tunnel.

VI. The locator and claimant, at his option, may also set forth, in such certificate of location, a description of the discovery work, the corner monuments and the markings thereon, and any other facts showing a compliance with the provisions of this law.

Such certificate of location must be verified, before some officer authorized to administer oaths, by the locator, or one of the locators, if there be more than one, or by authorized agent. In the case of a corporation, the verification may be made by any officer thereof, or by an authorized agent. When the verification is made by an agent, the fact of the agency shall be stated in the affidavit.

A certificate of location so verified, or a certified copy thereof, is prima facie evidence of all facts properly recited therein.

Section 2285. Mill Sites. Mill site claims may be located and recorded in the same manner as other claims, except that no discovery or discovery work is required. Where a mill site claim is appurtenant to a mining claim, the certificate of location of such mill site claim shall describe, by appropriate reference, the mining claim to which it is appurtenant.

Section 2286. Relocation of Abandoned Claim. The relocater of an abandoned or forfeited mining claim may adopt as his discovery any shaft or other working, existing upon such claim at the date of the relocation, in which the vein, lode or deposit is disclosed, but, in such shaft or other working, he shall perform the same discovery work as is required in the case of an original location.

Section 2287. Rights of Relocator. The rights of a relocater of any abandoned or forfeited mining claim, hereafter relocated, shall date from the posting of his notice of location thereon, and, while he is duly performing the acts required by law to perfect his location, his rights shall not be affected by any re-entry or resumption of work by the former locator or claimant.

Section 2288. Amended Location. A locator or claimant may, at any time, amend his location and make any change in the boundaries which does not involve a change in the point of discovery as shown by the discovery shaft by marking the location as amended upon the ground, and filing an amended certificate of location conforming to the requirements of an original certificate of location. A defect in a recorded certificate of location may be cured by filing an amended certificate.

Section 2289. Relocation by Owner. A locator or claimant may, at any time, relocate his own claim for any purpose, except to avoid the performance of annual labor thereof, and, by such relocation, may change the boundaries of his claim, or the point of discovery, or both, but such relocation must comply in all respects with the requirements of this law as to an original location.

Section 2290. Amendment or Relocation Not a Waiver of Acquired Rights. Where a locator or claimant amends or relocates his own claim, such amendment or relocation shall not be construed as a waiver of any right or title acquired by him by virtue of the previous location or record thereof, except as to such portions of the previous location as may be omitted from the boundaries of the claim as amended or relocated. As to the portion of ground included both in the original location and the location as amended or relocated, he may rely either upon the original location or the location as amended or relocated, or upon both. Provided, that nothing herein contained shall be construed, as permitting the locator or claimant to hold a tract which does not include a valid discovery.

Section 2291. Rights of Third Persons Not Affected. No amendment or relocation of a mining claim by the locator or claimant thereof shall interfere with the right of any third person existing at the time of such amendment or relocation.

Section 2292. Validating Locations Heretofore Made. All mining locations, made and recorded under the laws of this State, heretofore in force, that in any respect have failed to conform to the requirements of such laws, shall, nevertheless, in the absence of the rights of third persons accruing prior to the passage of this Act, be valid if the making and recording of such locations conform to the requirements of this Act.

Section 2293. Defective Locations Good Against Persons With Notice. The period of time prescribed by this law for the performance of any act, shall not be deemed mandatory where the act is performed before the rights of the third persons have intervened, and no defect in the posted notice or recorded certificate shall be deemed material, except as against one who has located the same ground, or some portion thereof, in good faith and without notice. Notice to an agent, who makes a location in behalf of another, shall be deemed notice to his principal and notice to one of several co-claimants shall be deemed notice to all.

Section 2294. Effect of Patent. The issuance of a United States patent for a mining claim shall be deemed conclusive that the requirements of the laws of this State relative to the location and record of such mining claim have been duly complied with; provided, however, that where questions of priority are involved the date of the location shall be an issuable fact where it is claimed to have been prior to the date of the record of the location.

Section 2295. Amended Locations. If at any time the locator of any mining claim heretofore or hereafter located, or his successors or assigns, shall apprehend that his original declaratory statement was defective or erroneous, or that the requirements of law had not been complied with, or shall be desirous of changing his boundaries, or taking any part of an overlapping claim which has been abandoned, or in case his original declaratory statement was filed prior to the passage of this law, and he shall be desirous of securing the benefit of this Act, such locator, or his successors or assigns, may file an additional or amended declaratory statement, subject to the provisions of this Act; provided that such relocation or filing of an amended or additional declaratory statement shall not interfere with the existing rights of others at the time of such relocation or filing of the amended or additional declaratory statement, and no such relocation or amended or additional declaratory statement, or other record thereof, shall preclude the claimant or claimants from proving any such title as he or they may have held under the previous location and notice thereof.

Section 2296. Effect of Amended or Additional Declaratory Statement. Any amended or additional declaratory statement which may have heretofore been filed by a locator, or his successors or assigns, shall have the same force and effect and be subject to the same terms and conditions as though the same had been filed under the provisions of Section 1 of this Act.

(Political Code of 1895.)

Section 3613. Placer Locations Heretofore Made—Effect Of. All placer mining locations or locations of valuable mineral deposits, which have heretofore been recorded in the office of the County Clerk or Recorder, have the same force and effect as though such records had been authorized by law, except in cases where the rights of third persons had been acquired before the passage of this Code; and such record is entitled to be admitted in evidence in any court.

(Political Code of 1895.)

Section 3614. Annual Work—Affidavit — Contents — Record. The owner of a lode or placer claim who performs or causes to be performed the annual work or makes the improvements required by the laws of the United States in order to prevent the forfeiture of the claim, may, within twenty days after the annual work, file in the office of the County Clerk of the county in which such claim is situated an affidavit of his own, or an affidavit of person who performed such work or made the improvements, showing:

1. The name of the claim and where situated.
2. The number of days' work done, and the character and value of the improvements placed thereon.
3. The dates of performing such work and of making the improvements.
4. At whose instance the work was done or the improvements made.
5. The actual amount paid for work and improvements, by whom paid, and when the same was not done by the owner.

Such affidavits, or a certified copy thereof, are prima facie evidence of the facts therein stated.

(Political Code of 1895.)

Section 3616. Official Survey — Certificate — Part of Declaratory Statement. Where a locator or owner of a mining claim has the boundaries and corners of his claim established by a United States deputy mineral surveyor, and his claim connected with a corner of the public or minor surveys, or an established initial point, and incorporates into the declaratory statement the field notes of such survey, and attaches to and files with such declaratory statement a certificate by the surveyor setting forth:

1. That such survey was actually made by him, giving the date thereof.
2. The names of the claim surveyed and the locators thereof.
3. That the description incorporated in the declaratory statement is sufficient to identify the claim.

Such survey and certificate becomes a part of the declaratory statement and such declaratory statement is prima facie evidence of the facts therein contained.

(The last three sections above have not been repealed, but are inadvertently omitted from the Revised Codes of 1907.)

Chapter 2.

STATE LANDS.

Disposition of Mineral Lands.

(Laws of 1909, Chapter 147, p. 289.)

(Provisions Relating to Other Than Coal or Mineral Lands Omitted.)

CHAPTER 147.

An Act Providing for the Management and Control of the Lands Now Owned by or Hereafter to Be Acquired by the State of Montana, Including the Sale and Rental Thereof, and the Management, Protection, and Disposition of the Timber Growing Thereon and the Coal, Oil and Minerals Therein; * * * and Defining and Providing for the Punishment of Certain Offenses for Violating the Provisions of This Act.

Be It Enacted by the Legislative Assembly of the State of Montana:

Section 28. Coal Lands—What Deemed—Selection. All coal areas in the State after final examination are defined by the United States geological survey, or other authority under the government of the United States, shall be recognized by the authorities of this State as coal lands, until otherwise determined; and no such lands shall be sold, but such lands may be leased by the State to any person or persons, company or corporation, but only on a royalty basis as herein provided; provided, however, that the surface rights of such land may be sold or may be leased for either agricultural or grazing purposes, but any other State lands may be designated as coal lands by the State Board of Land Commissioners, and withdrawn from sale when, in the opinion of the Board, such lands contain coal.

Section 34. Sale of State Lands—Reservation of Coal, Oil and Gas. The State Board of Land Commissioners may direct the sale of any State lands, except as provided in this Act, * * * and, provided, further, that all leases and conveyances of State lands by the State Board of Land Commissioners shall contain a reservation to the State of all coal, oil and gas contained therein.

Section 70. Rental of Coal Lands. Any person, association, co-partnership or corporation, leasing and operating coal land under the provisions of this Act, shall pay to the State the minimum price of not less than ten (10) cents per ton for each and every ton of merchantable coal so mined from said land, to be paid monthly on or before the 25th day of each month, for the coal mined during the preceding calendar month. Should the lessee of such coal land fail to mine during any one year the minimum amount that may be provided for in the term of the lease, he shall, notwithstanding such failure, pay to the State the minimum rental provided for in said lease. Should any person apply to lease any of the coal lands belonging to the State, upon which there are surface or underground improvements placed or made by a former lessee, before a lease shall issue, said applicant shall file in the office of the Register a receipt showing that the price of said improvements, as agreed upon by the parties, or fixed by the State Land Agent, or one of his assistants, has been paid to the owner thereof in full, or shall make satisfactory proof that he has tendered to such owner the price of such surface or underground improvements so agreed upon or fixed; or proof that the owner of such improvements elects to remove them.

Section 71. Location of Mining Claims on State Lands. Locations of mining claims not exceeding six hundred (600) feet in width and fifteen hundred (1500) feet in length, each, may be made upon lands belonging to the State as follows: The discoverer of a body of mineral in either a vein, lode or ledge, or mineral in a placer deposit, shall immediately post conspicuously a notice that he has made such a discovery, on the date stated in such notice, and shall complete such location in all respects as prescribed by the laws of this State for the location of mining claims upon the public lands of the United States, except that no notice of such location need be recorded in the office of the County Clerk, but such notice shall be filed with the Register of State Lands. Such procedure shall empower the locator to retain possession of and operate said claim for the period of one year, at the end of which time he shall be required to purchase said claim at ten dollars per acre or take a lease thereof at such price, or upon such terms as may be agreed upon between him and the State Board of Land Commissioners.

Section 72. Proof of Mineral Character of Land. Before the locator will be allowed to purchase the claim located by him, satisfactory proof at a hearing, if deemed necessary, must be submitted to the State Board of Land Commissioners, that such claim is more valuable for mineral purposes than for any other purpose, and that the same contains a body of mineral in place, or a placer deposit, of sufficient value to justify the operation of the same as a present fact; provided, that no mining claim shall be located upon any coal or oil lands; and, provided, further, that all hearings under the provisions of this section shall be had before the contest board with like procedure as other contested cases; and provided, further, that no lands classified under Subdivision 4 of the classification in the constitution shall be sold as mineral lands, but the mineral therein may be sold separately from the surface.

Section 73. Lands Valuable for Stone. Whenever it shall appear to the State Board of Land Commissioners that there is a deposit of stone valuable for building, mining, or other commercial purposes upon any section or subdivision of State land, the Board shall not lease the same for any purpose except for the extraction and working of the stone and then upon a royalty basis only, upon such terms as the Board shall prescribe. The Board may lease the remainder of the section or subdivision for agriculture, grazing or other purposes, as may appear for the best interests of the State, as other State lands are leased; but shall provide in all such cases for a right of way across said State land or any adjoining State land for all purposes connected with the working and disposition of the stone.

Chapter 3.

Acquisition of Water Rights.

(Title VII, Division II, Part IV, Revised Codes.)

- Section 4840. What Waters May Be Appropriated.
4841. Appropriations to Be for Useful Purpose.
4842. Point of Diversion May Be Changed.
4843. Water Turned Into Natural Channel May Be Reclaimed.
4844. Return of Surplus Water to Stream.
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4860. Owners of Water May Sell Surplus.
4861. Duty of Purchaser to Dig Ditches.
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4877. Statutory Measurements.
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4879. Effect of Decree.
4884. Appointment of Water Commissioner.
4887. Objection to Commissioner's Award.
4888. Record of Commissioner—Expenditures.
4889. Fees and Compensation.
4890. Users Must Maintain Head Gates, etc.

Section 4840. What Waters May Be Appropriated. The right to the use of any unappropriated water of any natural stream, water

course, spring, dry coulee, or other natural source of supply, and of any running water flowing in the streams, rivers, canyons and ravines of this State, may hereafter be acquired by appropriation.

Section 4841. Appropriation to Be for Useful Purpose. The appropriation must be for some useful or beneficial purpose, and when the appropriator or his successor in interest abandons and ceases to use the water for such purpose the right ceases; but questions of abandonment shall be questions of fact and shall be determined as other questions of fact.

Section 4842. Point of Diversion May Be Changed. The person entitled to the use of water may change the place of diversion, if others are not thereby injured, and may extend the ditch, flume, pipe or aqueduct, by which the diversion is made, to any place other than where the first use was made, and may use the water for other purposes than that for which it was originally appropriated.

Section 4843. Water Turned Into Natural Channel May Be Reclaimed. The water appropriated may be turned into the channel of another stream and mingled with its waters, and then be reclaimed, but, in reclaiming it, water already appropriated by another must not be diminished in quantity, or deteriorated in quality.

Section 4844. Return of Surplus Water to Streams. In all cases where by virtue of prior appropriation, any person may have diverted all the water of any stream, or to such an extent that there shall not be an amount sufficient left therein for those having a subsequent right to the waters of such stream, and there shall, at any time, be a surplus of water so diverted, over and above what is actually and necessarily used by the prior appropriator, such person shall be required to turn and cause to flow back into the stream such surplus water, and upon failure so to do, within twenty-four hours after demand being made upon him in writing, to him in person or at his place of abode, by any person having a right to the use of such surplus water, the person so diverting the same shall be liable to the person aggrieved for the damage resulting therefrom, in such sum as may be determined by court.

Section 4845. First in Time, First in Right. As between appropriators the one first in time is first in right.

Section 4847. Notice of Appropriation. Any person hereafter desiring to appropriate water must post a notice in writing in a conspicuous place at the point of intended diversion, stating therein:

1. The number of inches claimed, measured as hereinafter provided.
2. The purpose for which it is claimed and place of intended use.
3. The means of diversion, with size of flume, ditch, pipe, or aqueduct by which he intends to divert it.
4. The date of appropriation.
5. The name of the appropriator.

Within twenty days after the date of appropriation the appropriator shall file with the County Clerk of the county in which such appropriation is made a notice of appropriation, which in addition to the facts required to be stated in the posted notice, as hereinbefore prescribed, shall contain the name of the stream from which the diversion is made, if such stream have a name, and if it have not, such a description of the stream as will identify it, and an accurate description of the point of diversion on such stream, with reference to some natural object or permanent monument. The notice shall be verified by the affidavit of the appropriator, or some one in his behalf, which affidavit must state that the matters and facts contained in the notice are true.

Section 4848. Diligence in Appropriating. Within forty days after posting such notice the appropriator must proceed to prosecute the excavation or construction of the work by which the water appropriated is to be diverted, and must prosecute the same with reasonable diligence to completion. If the ditch or flume, when constructed, is inadequate to convey the amount of water claimed in the notice aforesaid, the excess claimed above the capacity of the ditch or flume shall be subject to appropriation by any other person, in accordance with the provisions of this Title.

Section 4849. Effect of Failure to Comply With Provisions. A failure to comply with the provisions of this Title deprives the appropriator of the right to the use of water as against a subsequent claimant who complies therewith, but by complying with the provisions of this Title, the right to the use of the water shall relate back to the date of posting the notice.

Section 4850. Record of Declaration. Persons who have heretofore acquired rights to the use of water shall, within six months after the publication of this Title, file in the office of the County Clerk of the county in which the water right is situated, a declaration in writing, except notice be already given of record as required by this Title, or a declaration in writing be already filed as required by this section, containing the same facts as required in the notice provided for in Section 4847 of this Title and verified as required in said last mentioned section in cases of notice of appropriation of water; provided, that a failure to comply with the requirements of this section shall in no wise work a forfeiture of such heretofore acquired rights, or prevent any such claimant from establishing such rights in the courts.

Section 4851. Record Prima Facie Evidence. The record provided for in Sections 4847 and 4850 of this Title, when duly made, shall be taken and received in all courts of this State as prima facie evidence of the statements therein contained.

Section 4852. Rights Settled in One Action. In any action hereafter commenced for the protection of rights acquired to water under the laws of this State, the plaintiff may make any or all persons who have diverted water from the same stream or source parties to such action, and the court may in one judgment settle the relative priorities

and rights of all the parties to such action. When damages are claimed for the wrongful diversion of water in any such action, the same may be assessed and apportioned by the jury in their verdicts, and judgment thereon may be entered for or against one or more of several plaintiffs, or for or against one or more of several defendants, and may determine the ultimate rights of the parties between themselves.

In any action concerning joint water rights, or joint rights in water ditches, unless partition of the same kind is asked by parties to the action, the court shall hear and determine such controversy as if the same were several as well as joint.

Section 4853. Record of Declaration Notices. The County Clerk must keep a well bound book, in which he must record the notices and declarations provided for in this Title, and he shall be entitled to have and receive the same fees as are now or hereafter may be allowed by law for recording instruments entitled to be recorded.

Section 4854. Measurement of Water—Cubic Foot. Hereafter a cubic foot of water (7.48 gallons) per second of time shall be the legal standard for the measurement of water in this State.

Section 4855. Miners' Inch—Equivalent in Gallons. Where water rights expressed in miners' inches have been granted, one hundred miners' inches shall be considered equivalent to a flow of two and one-half cubic feet (18.7 gallons) per second; two hundred miners' inches shall be considered equivalent to a flow of five cubic feet (37.4 gallons) per second, and this proportion shall be observed in determining the equivalent flow represented by any number of miners' inches.

Section 4856. Act Not to Affect Existing Decrees. Provided, that the provisions of this bill shall not affect or change the measurement of water heretofore decreed by a court, but such decreed water shall be measured according to the law in force at the time such decree was made and entered.

Section 4857. Right to Construct Dams. The right to conduct water from or over the land of another for any beneficial use, includes the right to raise any water by means of dams, reservoirs or embankments to a sufficient height to make the same available for the use intended, and the right to any and all land necessary therefor, may be acquired upon payment of just compensation in the manner provided by law for the taking of private property for public use.

Provided, further, that if it is necessary to conduct the water across the right of way of any railroad, it shall be the duty of the owners of the ditch or flume to give thirty days' notice in writing to the owner or owners of such railway of their intention to construct a ditch or flume across the right of way of such railroad and the point at which the said ditch or flume will cross the railroad; also the time when the construction of said ditch or flume will be made. If the owner or owners of such railroad or their agent fails to appear and attend at the time and place fixed in said notice, it shall be law-

ful for the owner or owners of the said flume or ditch to construct the same across the right of way of such railroad, without further notice to said owner or owners of the railroad.

Section 4858. Highways to Be Protected. Any person who digs and constructs ditches, dykes, flumes or canals over or across any public roads or highways, or who uses the waters of such ditches, dykes, flumes or canals, is required to keep the same in good repair at such crossings or other places where the water from any such ditches, dykes, flumes or canals may flow over, or in any wise injure any roads or highways, either by bridging or otherwise.

Section 4859. Penalty for Violating Preceding Section. Any person offending against the preceding section, on conviction thereof, shall pay for every offense a fine of not less than twenty-five dollars, nor more than one hundred dollars, with cost of prosecution. One-half of the fine shall be paid into the county treasury for the benefit of the common schools of the county in which the offense was committed and the other half shall be paid to the person informing the nearest magistrate that such offense has been committed, who shall issue a warrant upon proper complaint being made.

Section 4860. Owners of Water May Sell Surplus. Any person having the right to use, sell or dispose of water, and engage in using, selling or disposing of the same, who has a surplus of water, not used, or sold, or any person having a surplus of water, and the right to sell and dispose of the same, is required upon the payment or tender to the person entitled thereto an amount equal to the usual and customary rates per inch, to convey and deliver to the person such surplus of unsold water, or so much thereof for which said payment or tender shall have been made, and shall continue so to convey and deliver the same weekly so long as said surplus of unused or unsold water exists and said payment or tender be made as aforesaid.

Section 4861. Duty of Purchaser to Dig Ditches. Any person desiring to avail himself of the provisions of the preceding section must, at his own cost and expense, construct or dig the necessary flumes or ditches to receive and convey the surplus water so desired by him, and pay or tender to the person having the right to the use, sale or disposal thereof an amount equal to the necessary cost and expense of tapping any gulch, stream, reservoir, ditch, flume or aqueduct, and putting in gates, gauges or other proper and necessary appliances usual and customary in such cases, and until the same shall be done, the delivery of the said surplus water shall not be required as provided in the preceding section.

Section 4862. Enforcement of Right to Surplus. Any person constructing the necessary ditches, aqueducts or flumes, and making the payments or tenders hereinbefore provided, is entitled to the use of so much of the said surplus water as said ditches, flumes or aqueducts have the capacity to carry, and for which payment or tender is made, and may institute and maintain any appropriate action at law or in

equity for the enforcement of such right or recovery of damages arising from a failure to deliver or wrongful diversion of the same.

Section 4863. Purchaser Cannot Sell. Nothing in the three preceding sections shall be so construed as to give the person acquiring the right to the use of water as therein provided, the right to sell or dispose of the same after being so used by him, or prevent the original owner or proprietor from retaking, selling and disposing of the same in the usual and customary manner, after it is so used as aforesaid.

Section 4864. Dam or Reservoirs to Be Securely Constructed. No person shall hereafter fill, or procure to be filled with water, any dam or reservoir which is not so thoroughly and substantially constructed as that it will safely and securely hold the water to be turned therein.

Section 4865. No Person to Use Insecure Reservoir. No person shall hereafter construct, or cause to be constructed, on a stream, any dam or reservoir to accumulate the waters thereof, except in a thorough, secure and substantial manner.

Section 4866. Surveys of Ditches—Filing Map. Any person availing himself of the provisions of the preceding sections, and who shall have complied with said preceding sections relating to the appropriation of water, may, within six months after his ditch is completed, publish a notice once a week for two successive weeks, in a newspaper designated by the County Commissioners as the official paper of the county, stating that he will, on a date to be therein mentioned, which date shall be not less than twenty nor more than thirty days after the first publication of said notice, cause said ditch to be surveyed by a competent civil engineer, whose name shall be given, and stating the name of stream, and such a general description as will identify the ditch. It shall be the duty of said person to employ a competent civil engineer to make such survey, and it shall be the duty of such civil engineer to survey said ditch, ascertain its grade, measure the headgate thereof, and measure said ditch in such other places as may be necessary to show its carrying capacity, and also measure the land irrigated by said ditch, or proposed to be irrigated thereby, and to make a map showing the general courses of the ditch and the land irrigated or proposed to be irrigated therefrom, giving the grade and the dimensions of the headgate and other dimensions of the ditch where measured, and attach thereto his affidavit showing the date when he commenced the survey of said ditch, the date when completed, the names of the persons who assisted him, and that said map and the date given thereon are correct.

If for any reason the survey cannot be made upon the day designated in the notice, it may be made on any subsequent day, and the person who caused said survey to be made shall file an affidavit showing why the survey was not made on the day mentioned in the notice; provided, however, that if any person appears upon the ground at the time mentioned in the notice and serves a written notice that he desires to be present when said survey is made, the person who caused said ditch to be made shall give such person at least three days' writ-

ten notice of the time when said ditch shall be surveyed. The said survey of said ditch may be continued from day to day, or from time to time, as may be necessary to complete it, and any person shall have the right to be present at said survey. The map made by the surveyor, his affidavit, and the affidavit of publication of the notice aforesaid, shall within thirty days from the completion of said survey, be held in the office of the Clerk and Recorder of the county wherein the notice of appropriation is filed, and such affidavit and map, or certified copies thereof, shall be prima facie evidence of the facts therein shown and stated in all courts in this State in actions relating to said ditch and water right.

Section 4867. Effect of Decree Upon Subsequent Appropriations. Whenever there shall have been an adjudication of the rights between appropriators or claimants any stream or any other water supply in this State, in any district court of the State, or the United States court, in an action prosecuted in good faith between such appropriators, or claimants, to determine their respective rights to the use of such waters, and which decree is based upon evidence introduced and not upon stipulations or admissions of the parties, such adjudication and decree, or certified copies thereof, shall, as against all persons, appropriating or diverting any of the waters of said stream, or other water supply after the date of such decree, in an action relating to such waters, be prima facie evidence of the facts therein found, determined and decreed, respecting the rights of parties to said action to the use of the waters of said stream, or other water supply.

Section 4868. Appropriations of Water Subject to Prior Decree. All water hereafter appropriated by any person, association, company, or corporation after the passage of this Act, from any stream, creek, spring, canyon, river or ravine in this State, in which the water rights therein have been adjudicated and decreed prior to the passage of this Act, and a decree of a court of competent jurisdiction entered therein shall be subject to such decree.

Section 4869. Non-Adjudicated Streams Not Affected by Act. In all streams, creeks, springs, canyons, rivers and ravines, in which the water rights therein have not been adjudicated by a court of competent jurisdiction, water shall be appropriated in the same manner as provided by law, at the time of the passage of this Act.

Section 4870. Appropriations Pending Litigation Subject to Decree. At such time as there may be legal proceedings instituted by the owner or owners of any water right or water rights in any stream, spring, creek, canyon, river or ravine, before any court of competent jurisdiction, all subsequent appropriations made in any such streams, creeks, springs, canyons, rivers or ravines will be subject to such suit as may be instituted and shall not date prior to the date of the beginning of said suit, and will be subject to the rulings and decisions thereunder.

Section 4871. Appropriation From Adjudicated Stream Notice. Any person desiring to appropriate water in any stream, creek, canyon, river or ravine, wherein the rights of water therein have been adjudicated and decreed, shall post a notice in writing in a conspicuous place at the point of the intended diversion, stating therein:

1. The flow claimed, expressed in cubic feet per second.
2. The purpose for which said water is claimed, and the place of intended use.
3. The name of the stream, creek, spring, canyon, river or ravine.
4. The name of the appropriator or appropriators.
5. The date of posting said notice.

The work in the construction and completion of the means of diverting and conveying water to place of use shall be prosecuted with reasonable diligence, otherwise no rights shall be acquired by such appropriator, and no appropriator shall acquire any rights to water in excess of the carrying capacity of the ditch or means of conveying water, nor in excess of the amount actually needed by the appropriator for some useful and beneficial purpose.

Section 4872. Application Filed With Clerk of District Court. Within forty days from the date of the completion of the works of irrigation, the appropriator shall file with the Clerk of the District Court in the county in which said water is to be appropriated, an application in writing to have such ditch measured and the capacity determined, as herein provided.

Such application shall contain the sworn statement of the appropriator, in which is given the name of the stream from which said water is to be appropriated, the amount of water to be diverted, the intended point of diversion, the intended use of such water, and the place of intended use, and the name of the appropriator.

The Clerk of the District Court upon receipt of such application, duly executed and presented by the applicant or his attorney, shall enter the same upon the court records of said county, and thereupon issue an order directing a competent civil engineer to proceed to measure and determine the capacity of said ditch (expressed in flow of cubic feet second), definitely locate the exact point of the diversion by a course and distance to some established corner of the public surveys, or if there be no such corner within two miles of said ditch, then a connecting line shall be run to some suitable permanent object or monument that will not be destroyed or defaced, and to report the results of such measurements and surveys, together with a plat, in duplicate, on which shall be shown the location of said point of diversion, together with the connecting line, to the corner of the public surveys or monuments, the size and capacity of the ditch and headgate, the date of the notice of appropriation, the date of the survey, the name of the stream, the name of the appropriator or appropriators, the purpose and place of intended use, and in case the use be for irrigation, the plat must show the location and area of land to be irrigated thereby, and make such returns to the Clerk of the Court within thirty (30) days from the receipt of said order.

The clerk shall thereupon cause to be published, in the newspaper published nearest the point of diversion, once a week in three successive issues of said paper, a notice giving the name of the appropriator, amount of appropriation and name of stream from which the water is appropriated. Any person or persons interested in the waters of said stream may, on or before the last day of publication, file with the clerk written objections to such appropriation.

Section 4873. Duties of Court. The Clerk of the District Court, immediately after the expiration of the period of publication, the receipt of the report and plat of the surveyor, and proof of publication of notice, shall file the same, and on the first day of a regular or special term of court thereafter, shall present all papers to the court for consideration. If no objections are filed, the court shall enter an order allowing said appropriation. If objections are made, the court shall fix a day for hearing, and on such hearing witnesses may testify, and the court after hearing may make an order deemed proper in the premises.

Section 4874. Deposit for Expenses. The appropriator shall, at the time of filing his application with the Clerk of the District Court, make a deposit with said clerk, in a sum sufficient to cover all expense for the legal fees for filing any action, together with stenographer's fees, and fees for filing and recording all decrees and other papers in the matter, and the cost of the survey, not to exceed ten dollars per day, and necessary traveling expenses, and five dollars for each plat filed, said sum to be fixed and estimate made by the Clerk of the District Court, and residue remaining in the possession of said clerk, when all fees and costs are paid, shall be returned to the applicant; should there not be sufficient money deposited to meet all fees and expenses said water right shall be of no force and effect until the same have been paid.

Section 4875. Payment of Expenses. The Clerk of the District Court shall, upon receipt of any report made in conformity with the provisions of this Act, and duly certified to by a civil engineer, pay to him out of the moneys deposited with him for said purpose, a sum not to exceed ten dollars per day and necessary traveling expenses, and five dollars for each plat made and filed, upon the civil engineer presenting the proper bill, duly sworn to, for said expenses. A receipt of any such payment shall be given to the clerk.

Section 4876. Record of Survey. The Clerk of the District Court shall keep in his office a suitable bound book, in which shall be kept an accurate record of all surveys and reports in accordance with this Act.

Section 4877. Statutory Measurements. Where water rights have been decreed in statutory or miners' inch be equivalent to a flow of two and one-half cubic feet per second, and one hundred miners' or statutory inches shall be equivalent to a flow of two and one-half cubic feet per second, this proportion shall be observed in determining the equivalent flow of any number of miners' or statutory inches.

Section 4878. Penalty. A failure to comply with the provisions of this Act deprives the appropriator of the right to such decree, as against a subsequent claimant who complies herewith.

Section 4879. Effect of Decree. Any person or persons appropriating water under the provisions of this Act shall be subject to, bound by, and shall comply with any decree of court adjudicating the waters of such stream, or any stream of which the same may be a tributary or feeder, as fully and to the same extent as if said person or persons were original parties to the action wherein the said decree is made and entered, and any water commissioner or commissioners, appointed by the court to distribute waters under any decree, shall have jurisdiction over, and shall distribute any waters appropriated under the provisions of this Act, according to priority.

Section 4880. Effect of Failure to Comply With Provisions. A failure to comply with the provisions of this Act deprives the appropriator of the right to use any water of such stream, as against any subsequent appropriator complying herewith, and as against any prior appropriator mentioned in or bound by a decree of court.

Section 4890. Users Must Maintain Headgates, Etc. All persons using water under a decree from any stream whereon a water commissioner is appointed, shall be required to have suitable headgates at the point wherein a ditch taps a stream, and shall also, at some suitable place on the ditch and as near the head thereof as practicable, place and maintain a proper measuring box, weir or other appliance for the measurement of the waters flowing in such ditch. In case any person or persons shall fail to place or maintain a proper measuring appliance, it shall be the duty of such water commissioner not to apportion or distribute any water through said ditch.

Chapter 4.
Mining Partnerships.
(Revised Codes.)

Section 5535. Definition.

5536. Express Agreement Not Necessary.

5537. Profits and Losses, How Shared.

5538. Liens of Partners.

5539. Mine—Partnership Property.

5540. Partnership Not Dissolved by Sale of Interest.

5541. Purchaser Takes Subject to Liens.

5542. Takes With Notice of Lien, When.

5543. How Partnership Bound.

5544. Owners of Majority of Shares Govern.

Section 5535. Definition. A mining partnership exists when two or more persons who own or acquire a mining claim for the purpose of working it and extracting the mineral therefrom, actually engage in working the same.

Section 5536. Express Agreement Not Necessary. An express agreement to become partners or to share the profits and losses of mining is not necessary to the formation and existence of a mining partnership. The relation arises from the ownership of shares or interests in the mine and working the same for the purpose of extracting the minerals therefrom.

Section 5537. Profits and Losses, How Shared. A member of a mining partnership shares in the profits and losses thereof in the proportion which the interest or share he owns in the mine bears to the whole partnership capital or whole number of shares.

Section 5538. Liens of Partners. Each member of a mining partnership has a lien on the partnership property for the debts due the creditors thereof, and for money advanced by him for its uses. This lien exists notwithstanding there is an agreement among the partners that it must not.

Section 5539. Mine Is Partnership Property. The mining ground owned and worked by partners in mining, whether purchased with partnership funds or not, is partnership property.

Section 5540. Partnership Not Dissolved by Sale of Interest. One of the partners in a mining partnership may convey his interest in the mine and business without dissolving the partnership. The purchaser, from the date of his purchase, becomes a member of the partnership.

Section 5541. Purchaser Takes Subject to Liens. A purchaser of an interest in the mining ground of a mining partnership takes it subject to the liens existing in favor of the partners for debts due all creditors thereof, or advances made for the benefit of the partnership, unless he purchased in good faith, for a valuable consideration, without notice of such lien.

Section 5542. Purchaser Takes With Notice of Lien, When. The purchase of the interest of a partner in a mine when the partnership is engaged in working it, takes with notice of all liens resulting from the relation of the partners to each other, and to the creditors of the partnership.

Section 5543. How Partnership Bound. No member of a mining partnership or other agent or manager thereof can, by a contract in writing, bind the partnership, except by express authority derived from the members thereof.

Section 5544. Majority of Shares Governs. The decision of the members owning a majority of the shares or interests in a mining partnership binds it in the conduct of its business.
Miners', Assayers' and Mining Engineers' Exemption From Execution.

(Revised Codes.)

Section 6825. In addition to the property mentioned in the preceding section, there shall be exempt to all judgment debtors who are married, or who are heads of families the following property: * * *

To a miner: His cabin or dwelling, sluices and thousand dollars, and one horse or mule with harness, and food for such horse or mule, for three months when such horse or mule is used in working his mine or mining claim.

To a * * mining * * engineer: Instruments, tools, books and records necessary to carry on his profession.

To an * * * * assayer: The tools, instruments and supplies necessary to carry on his profession.

Liens of Mechanics on Mining Property.

(Revised Codes.)

Section 7290. Every mechanic, miner, machinist, architect, foreman, engineer, builder, lumberman, artisan, workman, laborer, and any person performing any work and labor upon, or furnishing any material, machinery or fixture for any building, structure, bridge, flume, canal, ditch, aqueduct, mining claim, quartz lode, tunnel, city or town-lot, farm, ranch, fence, railroad, telegraph, telephone, electric light, gas or water works or plant, or any improvements, upon complying with the provisions of this chapter, for his work or labor done, or material, machinery or fixtures furnished, has a lien upon the property upon which the work or labor is done, or material furnished.

Fixtures Attached to Mine.

(Revised Codes.)

Section 4428. Sluice boxes, flumes, hose, pipes, railway tracks, cars, blacksmith shops, mills, and all other machinery or tools used in working or developing a mine are to be deemed affixed to the mine.

Fraud in Selling Mines, Etc.

(Revised Codes.)

Section 8692. Use of False Pretenses in Selling Mines.

8693. Interference With Samples for Assay.

8694. Making False Samples of Ore.

Section 8692. False Pretenses in Selling Mines. Every person who, with intent to cheat, wrong, or defraud, places in or upon any mine or mining claim any ores or specimens of ores not extracted therefrom, or exhibits any ore, or certificate of assay of ore not extracted therefrom, for the purpose of selling any mine or mining claim, or interest therein, or who obtains any money or property by any such false pretenses or artifices, is guilty of a felony.

Section 8693. Interference With Samples for Assay. Every person who interferes with, or in any manner changes samples of ores or bullion producing for sampling or changes or alters samples or packages of ores or bullion which have been purchased for assaying, or who shall change or alter any certificate of sampling or assaying, with intent to cheat, wrong, or defraud, is guilty of a felony.

Section 8694. Making False Samples of Ores. Every person who, with intent to cheat, wrong, or defraud, makes or publishes a false sample of ore or bullion, or who makes or publishes, or causes to be published a false assay of ore or bullion is guilty of a felony.

Destroying Notices—Penalty.
(Revised Codes.)

Section 8759. Every person who intentionally:

1. Defaces, obliterates, tears down or destroys any copy or transcript or extract from or of any law of the United States or of this State, or any proclamation, advertisement or notification set up at any place in this State by authority of any law of the United States or of this State or by order of any court, before the expiration of the time for which the same was to remain set up; or,

2. Defaces, obliterates, tears or destroys any notice placed or posted on a mining claim, or removes or destroys any stake or monument placed thereon to identify it,

Is punishable by imprisonment in the county jail not exceeding three months or by a fine not exceeding one hundred dollars, or both.

LAWS OF MONTANA

RELATING TO BOILERS AND ENGINEERS

REVISED CODES OF MONTANA OF 1917
CHAPTER 125 LAWS OF 1913
CHAPTER 104 LAWS OF 1915
AND CHAPTER 92 OF THE
LAWS OF 1917

As Amended by the Session Laws
of 1919

BOILER INSPECTION DEPARTMENT

R. MORAN, Northern District, Helena.

G. A. REDDING, Central District, Helena.

R. A. PRATER, Southern District, 523 N. 30th St., Billings.

FRANK J. COBURN, Western District, 821 Colorado St., Butte.

E. B. KENNEDY, Clerk Bureau of Safety Inspection, Helena.

BOILERS AND ENGINEERS.

- Section 1. Placing Departments Boiler, Steamboat, Quartz and Coal Mine Inspection under Industrial Accident Board.
- Section 1643. Inspection of Boilers.
- Section 1644. Same. Tampering with safety valves.
- Section 1645. Boiler material.
- Section 1646. Examination made at any time.
- Section 1647. May seal firebox.
- Section 1648. Engineers must hold license.
- Section 1649. Classification of engineers.
- Section 1650. Revocation of licenses.
- Section 1651. Certificate of inspection.
- Section 1652. Fees.
- Section 1653. Re-examination for license.
- Section 1654. Board of re-examination.
- Section 1655. Exemptions. Owners to register traction engines. Purchasers of boilers to notify inspector.
- Section 1656. Renewals. Reports.
- Section 1657. Operating with unlicensed engineer.
- Section 1659. Sale of second hand boilers. Must be inspected before Seller must notify inspector.
- Section 8444. Penalty for operating with unlicensed engineer.
- Section 8445. Penalty for operating defective boiler.
- Section 8446. Penalty for inspectors making false report.
- Page 141. Licensing Engineers of Air and Electric Engines.
- Page 142. Inspection Draw Bar. H. P.

CHAPTER 92 OF THE LAWS OF 1917.

Section No. 1. The office of Inspector of Boilers, Inspector of Steamboats, the office of Inspector of Mines and the office of State Coal Mine Inspector are hereby combined and placed under the general supervision of the Industrial Accident Board.

Section No. 2. The Industrial Accident Board shall appoint not to exceed four Inspectors of Boilers, one Coal Mine Inspector, two Inspectors of Quartz Mines, and one inspector of Steamboats, all of whose terms of office shall be at the pleasure of the Industrial Accident Board.

Section No. 3. The said officers shall receive such annual salaries to be fixed by the Industrial Accident Board, and approved by the Governor; all of said officers to be paid monthly.

Section No. 4. The Industrial Accident Board shall district the State for boiler inspection and shall assign one Inspector of Boilers to each such district, and may from time to time change the boundaries of said districts and change said Inspector of Boilers to other districts and said Board shall have the power and it shall be its duty to provide rules and regulations under which said Inspectors of Boilers, Inspectors of Mines, and Coal Mine Inspectors shall perform their duties; and the Board may require them, in addition to their statutory duties

to make the annual inspections, reports and collections required by safety provisions of Sections 51a, 51b, 51c, 51e, 52a and 52b of Chapter 96, Laws of the Fourteenth Legislative Assembly.

Section No. 5. That all fees collected by the Inspectors of Boilers, the Inspectors of Mines and the Coal Mine Inspector shall remain the same in amounts as now fixed by law and when same are collected they shall be paid into the State Treasury and credited to the Industrial Administration Fund as other inspection fees of the Industrial Accident Board are now paid and credited.

Section No. 6. That Sections 55a and 55b, Chapter 96, Laws of the Fourteenth Legislative Assembly, known as the Workmen's Compensation Act, are hereby amended and combined to read as follows: "Section 55. That all laws that now prescribe the qualification, powers and duties of the Inspectors of Boilers, Inspectors of Steamboats, Inspectors of Mines and Coal Mine Inspector not inconsistent with the provisions of this Act, are hereby continued in full force and effect, and all other Acts and parts of Acts contrary to the provisions of this Act, are hereby repealed."

Section No. 7. This Act shall be in full force and effect on and after March 4th, 1917.

Approved March 3, 1917.

REVISED CODES, 1907.

Section 1643. The Inspector of Boilers must inspect all steam boilers and steam generators before the same are used, and all persons who bring into this State any boiler or boilers must notify the Boiler Inspector, stating the number and kind of boilers, where they had heretofore been located and where they are to be located and operated in this State, and must secure from the Boiler Inspector a certificate of inspection before said boilers are placed in operation, except in the case of new boilers, which must be inspected within ninety (90) days after they are put in use, and all boilers must be inspected at least once in every year. Any person failing to give notice to the Boiler Inspector as herein provided or who operates such boilers without a certificate from the Boiler Inspector, shall be punished by a fine of not less than one hundred dollars (\$100) nor more than five hundred dollars (\$500) for each offense, or by imprisonment in the county jail for not less than thirty nor more than ninety days, or by both such fine and imprisonment. The Inspector of Boilers must subject all boilers to hydrostatic pressure, which hydrostatic pressure must be $33\frac{1}{3}\%$ greater than the steam pressure allowed on the boilers, providing there are no such leaks on such boilers which prevent the inspector from applying such hydrostatic pressure. And the Inspector must satisfy himself by a thorough interior and exterior examination that the boilers are well made and of good and suitable material; that the openings for the passage of water and steam, respectively, and all pipes and tubes exposed to heat are of the proper dimensions and free from obstructions; that the flues are circular in shape; that the fire line of the furnace

is at least two inches below prescribed minimum water line of the boilers; that the arrangements for delivering the feed water is such that the boilers cannot be injured thereby, and that such boilers and steam connections may be safely employed without danger to life.

Section 1644. The Inspector must also satisfy himself that the safety valves are of suitable dimensions, sufficient in number and area, and properly arranged, and that the safety valves' weights are properly adjusted so as to allow no greater pressure in the boilers than the amount prescribed by the inspection certificate; that there are sufficient number of gauge cocks properly inserted to indicate the amount of water, and suitable gauges that will correctly record the pressure of steam; and adequate and certain provisions for an ample supply of water to feed the boilers at all times, and that suitable means for blowing out are provided, so as to thoroughly remove mud and sediment from all parts of the boilers when they are under pressure of steam, and any renter, user or owner of a boiler or any person or persons who tamper with the safety valve to allow the boiler to carry greater pressure than is allowed by the inspection certificate shall be deemed guilty of a misdemeanor.

In subjecting the boilers to the hydrostatic test, the test applied must exceed the working pressure allowed in the ratio of 100 to 66%, provided the valves and other conditions of piping on the boiler will allow the Inspector to make such test. But where there are leaks on the boiler which make it impossible to apply such hydrostatic pressure or where the water cannot be procured with which to make such test, the Inspector may make a hammer test of said boiler and inspect same closely and give to such boiler a rating for steam pressure as its condition will warrant. In all cases the Inspector must use judgment in the steam pressure allowed on boilers. Where a boiler is constructed with lap horizontal seams on boiler, dome or drum, a factor of four and one-half shall be used in determining the safe working pressure allowed on such boiler. But where the boilers are constructed with butt-strap horizontal seams, a factor of four may be used in determining such a safe working pressure. But in any case the Inspector may use a higher factor if the conditions are such as to warrant it. If the boiler rests on side walls on lugs, or is hung by eye beams or is in any way set up so that the weight of the boiler is pulling against the horizontal seam of rivets, a factor of five must be used to determine the safe working pressure to be allowed on such boiler. Where the horizontal lap seams of boiler are exposed to the fire, a factor of five must be used to determine the safe working pressure to be allowed on such boiler. On stay bolts, if new, seven thousand five hundred pounds' pressure per square inch shall be allowed. If such stay bolts are corroded or defective the Inspector must determine the pressure to be allowed on the same. On braces made of solid material, eight thousand pounds' pressure per square inch shall be allowed. On welded braces or braces with only one crowfoot six thousand pounds' pressure per square inch shall be allowed. No cast-iron shall be used in the construction or reinforcements of any boiler where the pressure allowed on said boiler is more than one hundred pounds per square inch.

Section 1645. No boiler or steam pipe, nor any of the connections thereto, must be approved which is made in whole or in part of bad material, or is unsafe from any cause. Nothing herein shall be construed to prevent the use of any boiler or steam generator which may not be constructed of riveted iron or steel plates, when the Inspector has satisfactory evidence that such boiler or steam generator is equal in strength to and as safe from explosion as boilers of the best quality, constructed of iron or steel plates.

Section 1646. In addition to the annual inspection, it is the duty of the Inspector, or the Assistant Inspector, to examine at proper times, when in their opinion such examination is necessary, all such boilers as shall have become unsafe from any cause, and to notify the owner or the person using such boilers of any defect and what repairs are necessary to render them safe.

Section 1647. It is the duty of the owners or managers of steam boilers to allow the Inspector free access to the same. In case the owner or manager of any boiler is notified by the Inspector to have said boiler ready for inspection on a day certain and fails to have such boiler ready for inspection at such time, the Inspector shall at once seal up the fire box in such boiler and such seal must not be removed from the fire door without a written order from the Inspector. Any person tampering with or removing said seal shall be deemed guilty of a misdemeanor and upon conviction thereof shall be punished by a fine of not less than one hundred dollars nor more than five hundred dollars, or by imprisonment in the county jail for not less than two months nor more than six months or by both such fine and imprisonment. If the owner or manager of any boiler that has been so sealed desires to have the same inspected before the next regular visit of the Inspector to the district where said boiler is situated, he must pay all transportation and hotel expenses of the Inspector who makes the inspection, in addition to the inspection fee provided by law. It shall be the duty of the engineer operating any boiler or boilers to assist the Inspectors in their examination of the same and point out any defects known to him in the boilers or machinery under his charge. Any engineer not complying with this section shall have his license revoked or suspended.

Section 1648. No person must be granted a license to operate steam boilers or steam machinery under the provisions of this article who has not been examined by the Inspector and found competent to perform the duties of an engineer and receive from such Inspector a written or printed license so to act. Any person who operates any steam boiler or steam engine without first obtaining a license from the Inspector or an Assistant Inspector is guilty of a misdemeanor and upon conviction shall be punished by a fine of not less than fifty dollars nor more than one hundred dollars, or by imprisonment in the county jail for not more than sixty days or both such fine and imprisonment.

Section 1649. Engineers entrusted with the care and management of steam machinery as specified in Section 1648, must be divided into four classes, namely, first class engineers, second class engineers, third class engineers and low pressure engineers. No license shall be granted to any person to perform the duties of a first class engineer who has not taken and subscribed an oath that he has had at least three years' experience in the operation of steam boilers and steam machinery, or whose knowledge and experience is not such as to justify the belief that he is competent to take charge of all classes of steam boilers and steam machinery.

No license must be granted to any person to act as a second class engineer who has not taken and subscribed an oath that he has had at least two years' experience in the operation of steam boilers and steam engines and is, on examination, found competent to take charge of all classes of steam boilers and steam machinery not exceeding one hundred horse power. No license must be granted to any person to act as a third class engineer who has not served at least one year under a competent engineer and is found, upon examination, to be sufficiently acquainted with the duties of an engineer to be entrusted with the care of steam boilers and of steam machinery not exceeding twenty horse power. All firemen who have charge of steam boilers, as to the regulation of feed water and fuel, where the boilers are so situated as not at all times to be under the eye of the engineer in charge, are required to pass a third class engineer's examination and procure the same kind of license. All firemen who operate boilers where over thirty pounds' pressure per square inch is allowed must hold at least third class license. All persons who operate heating boilers or plants in public buildings where the steam pressure allowed on such boilers is thirty pounds per square inch or less must procure from an Inspector a low pressure license. Applicants for this grade of license must have had at least six months' previous experience in the care and management of low pressure boilers and must be found competent, on examination, to hold such grade of license. Such license shall not entitle the holder thereof to operate steam boilers or steam machinery where the boiler pressure allowed is over thirty pounds to the square inch. Engineers holding third class or higher class of license may operate boilers in heating plants where thirty pounds' pressure or less per square inch is allowed without obtaining a low pressure license. All applicants for license as stationary engineers or firemen must be at least eighteen years of age. None of the licenses in this section above named shall entitle the holder thereof to operate a traction engine but all persons who are entrusted with the care and management of traction engines, or boilers on wheels, are required to pass an examination as to their competency to operate such class of machinery and to procure a license to be known as a traction license. Such traction license shall not entitle the holder thereof to operate any other class of steam machinery specified in Section 1648. No license shall be granted to any person to act as a traction engineer who has not had at least six months' experience as fireman on traction engines and

who is not found, upon examination, to be sufficiently acquainted with the duties of a traction engineer to be entrusted with the care of traction engines. Applicants for traction licenses must be at least eighteen years of age.

Section 1650. Whenever complaint is made against an engineer holding a license from the Inspector that he, through negligence, want of skill, or inattention to duty, permitted his boiler to burn or otherwise become in bad condition, or that he has been found intoxicated while on duty, it is the duty of the Inspector or Assistant Inspector to make a thorough investigation of the charge and upon satisfactory proof of such charge to revoke the license of such engineer.

Section 1651. In making an inspection of the boilers and machinery herein provided for, the Inspectors may act jointly or separately, but the Inspector or Assistant Inspector making such inspection must in all cases certify the same under the seal of the Boiler Inspector's office. Any Inspector or Assistant Inspector who wilfully and feloniously certifies regarding any steam boilers or their attachments or grants a license to any person to act as engineer contrary to the provisions of this article, is punishable under the provisions of Section 8446 of the Revised Codes.

Section 1652. The Inspector of Boilers is authorized to charge a fee of ten dollars for the inspection of each steam boiler and its steam connections and five dollars for each additional boiler when connected. The fee for the inspection of each traction engine or boiler on wheels shall be ten dollars. The fee for the inspection of boilers in incorporated cities shall be five dollars. Such fees shall be payable at the time of the inspection. In case of the failure of the owner, manager or person in charge of any boiler to pay such fee upon the demand of the Inspector, said Inspector is authorized to seal the fire box of said boiler and said seal shall not be removed until said fee is paid and the written order of the Inspector authorizing its removal is received by said owner or manager. Any person who tampers with or removes such seal without such written order shall be deemed guilty of a misdemeanor and punished as provided by Section 1647. The fee for the examination of applicants for engineer's license is \$7.50 for first class engineer; \$5.00 for second class engineer; \$3.00 for third class engineer; \$2.00 for low pressure engineer and \$3.00 for traction engineer, to be paid at the time of application for license. In case of the failure of any applicant to pass a successful examination, ninety days must elapse before he can again be examined as applicant for license. But the Inspector may grant to the applicant a lower grade of license than that applied for upon such examination. All certificates of inspection and engineers' licenses must be displayed in a conspicuous place in the engine room.

Section 1653. If any person who has applied for a license as a first or second or third class engineer, under the provisions of this article, and has been rejected, feel aggrieved, he may at any time after the lapse of ten days and within ninety days after the date of his

rejection, by petition in writing, set forth the causes of his grievance and demand another examination. Such petition must be addressed to and served upon the Inspector, and shall be duly verified by the rejected applicant, and accompanied by the required fee for a second examination. Within two days after receiving such petition and fee, it is the duty of the Inspector to notify the applicant in writing that on a day certain, which shall be not less than five nor more than forty days after the date of the service of the petition upon such Inspector, he will be ready to grant him another examination. At least two days before the day set for examination the applicant must designate in writing to such Inspector the name of an engineer holding a certificate of equal grade with the one applied for, and such engineer may present himself upon the day and the hour fixed for the re-examination.

Section 1654. Upon the same day, or any day prior to the date set for such examination, the Inspector and selected engineer must in writing agree upon and designate and notify a third disinterested engineer holding a license equal in grade to the license applied for by the rejected applicant, to sit with them. On the day and hour set for such re-examination all three of such board, that is, the Inspector and the engineer selected by the applicant and the engineer agreed upon by them, must proceed to carefully re-examine such applicant and fully and fairly test his qualifications and capabilities to receive a license such as he has applied for. After such examination is completed, if a majority of such board decide that such applicant is entitled to the license he has applied for, or any license of inferior grade, the Inspector must without delay issue a certificate accordingly, but if a majority of such board reject the applicant, it is a final rejection, and he must not be granted another examination for the space of ninety days after such last rejection, when he may again apply to the Inspector or Assistant Inspector as provided by Section 1652, of this article, and no person must be granted more than one re-examination before a board under the provisions of this article. One-half of the fee which may have accompanied any rejected applicant's petition for re-examination must be awarded by the Inspector to each of the engineers who sit on any such examining board, and in case the applicant is granted a license the fee paid when he was first rejected is the fee for the issuing of such license granted by any board. In case any engineer selected or agreed upon as by this section is provided, fails or neglects to appear or serve, another may be selected in his place in the manner herein provided.

Section 1655. Boilers used for heating purposes in private residences and locomotives used on railroads conducting a general business in hauling passengers and freight do not come under the provisions of this article. But locomotives, commonly known as dinkey engines, used in operating logging or mining railroads, or any similar work where such locomotives are owned, leased or operated by any individual, company or corporation and are used in the business of such individual, company or corporation and not for general commercial purposes, shall be classed as traction engines and be subject to inspection as are other

traction engines, and the persons operating or firing such dinkey locomotives shall be required to hold traction license. Nor are locomotive engineers, save as herein provided, or persons operating any of the engines or boilers herein, exempted from the operation of this article required to procure license from the Inspectors. It shall be the duty of the owner and user of any traction engine or boiler on wheels to notify the Inspector of the location of such boiler on or before the first day of June of each year. Any owner or user of such traction engine or boiler on wheels who shall fail to notify the Inspector as herein provided shall be deemed guilty of a misdemeanor. Any person purchasing any steam boiler, whether traction or stationary boiler, shall be entitled to receive from the seller the certificates of inspection issued on such boiler, and any person purchasing any steam boiler, whether traction or stationary, not exempted by the provisions of this section, shall, within ten days after such purchase, report the fact of such purchase to the Boiler-Inspector and notify such Inspector where he intends to locate or operate said boiler. Any person failing to comply with the provisions of this section shall be deemed guilty of a misdemeanor. All other steam boilers and steam engines, save as herein exempted, come under the provisions of this article and persons operating same are required to hold the proper grade of license.

Section 1656. Certificates must be renewed yearly. Annual report—All certificates of license to engineers of all classes shall be renewed yearly except as herein provided. The fee for renewal is one dollar (\$1.00) in all cases. Any engineer failing to renew his license as herein provided, or within at least thirty days thereafter, must forward the fee for the original license of the same grade, before license can be re-issued; provided, however, that any engineer whose license expired while such engineer was in the military or naval service of the United States, shall have sixty days from the time such engineer is discharged from such military or naval service within which to renew his license at the renewal fee of one dollar (\$1.00.)

All moneys collected by virtue of the provisions of this article must be paid into the State treasury once in each month and credited to the Industrial Accident Board Administrative Fund as other inspection fees of the Industrial Accident Board are now paid and credited.

Section 1657. It is unlawful for any person in this State to operate a stationary boiler or steam engine or any boiler or steam engine other than railroad locomotives or other engines than boilers exempted by the provisions of Section 1655, without a license granted under the provisions of this article. The owner, renter or user of any steam engine or boiler is equally liable for the violation of this section. But in case of accident, sickness, refusal to work, or any unforeseen prevention of the licensed engineer employed by any owner, renter, or user of a steam engine or boiler operated in remote districts which would retard the work to be performed, the owner, renter or user may, for the space of fifteen days, employ any person of the age of eighteen years, whom he may consider competent to run the engine or boiler, although such

person so employed may not be the holder of an engineer's license. The person so employing the unlicensed engineer must immediately notify the Inspector or Assistant Inspector. But no owner, renter or user of steam machinery shall be allowed to so employ unlicensed engineers for more than fifteen days in any one calendar year. And it shall be unlawful, except as stated in this section, for any person, firm or corporation to employ any person not duly licensed as an engineer within the meaning of this Act, to run or operate any of the boilers or engines subject to the provisions of this Act.

Section 1659. Any person, firm or corporation who sells or offers to sell or who uses or attempts to use, or who rents to others for use or who delivers to others for use or who induces others to use any steam boiler that has heretofore been used, either within or without this State, shall be deemed guilty of a misdemeanor and upon conviction thereof shall be punished by a fine of not more than five hundred dollars or by imprisonment in the county jail for not longer than six months, or by both such fine and imprisonment. Provided, that the provisions of this section shall not apply to boilers or engines exempted by the provisions of Section 1655, nor does it apply to boilers which have been inspected within one year prior to the commission of the act complained of and on which a certificate of inspection has been issued and has not been revoked, nor does it apply to boilers on which a certificate of inspection has been extended as provided in Section 1643 within the time limit of such extension.

Section 8444. Every person who operates any steam boiler or steam engine without first obtaining a license from a Boiler Inspector as required by law, and every owner, employer or manager of any steam engine or boiler who knowingly permits any unlicensed engineer to operate any steam boilers or steam engines where a license is required, or who operates or causes to be operated any steam engine or boiler without having the same inspected and the Inspector's certificate issued thereon as required by law, or who violates any of the provisions of Section 1639 to and including Section 1659 of the Revised Codes of 1907 as amended by this Act, shall be deemed guilty of a misdemeanor and upon conviction thereof, where no other punishment is prescribed, shall be punished by a fine of not more than five hundred dollars or by imprisonment in the county jail not exceeding six months or by both such fine and imprisonment.

Section 8445. Every owner, renter or user of a steam boiler who uses a boiler or steam engine which has become unsafe from any cause, or has been notified by the Boiler Inspector or his assistant, that such boiler or steam engine is unsafe from any defect, or that repairs are necessary, and after such notice uses the same, is punishable by imprisonment in the county jail not exceeding three months, or by fine not exceeding two hundred and fifty dollars, or both.

Section 8446. If the State Boiler Inspector, or Assistant Inspector, wilfully and falsely certifies regarding any steam boiler, steam engine,

or its attachments, or grants a license to any person to act as engineer, contrary to law, he is punishable by imprisonment not exceeding one year in the county jail, or by a fine not exceeding five hundred dollars, or both.

CHAPTER 104, LAWS OF 1915.

Section 1. It shall be unlawful for any person to operate an electric hoisting engine, or any air hoisting engine, or any hoisting engine operated by gas, oil or any product of oil, of over five (5) horse power when used in lowering or hoisting men, except in operating elevators in buildings, or any air compressor operated by any power, without first obtaining a license therefor from a Boiler Inspector as herein provided. Except that in emergencies the provisions of Section 1657 of the Revised Codes relating to the employment of unlicensed engineers shall apply to the operation of the engines and machinery named herein.

Section 2. Application for such licenses shall be made to the State Boiler Inspector in the manner, and the same fee shall be charged therefor and for such license, as now required by law for obtaining a license to operate steam engines and steam boilers, and such license shall be given for a period of one year from the date of issuance thereof, and may be renewed in the same manner provided by law for the renewal of a license to operate steam engines or steam boilers, provided that the State Boiler Inspector shall have the right to revoke any license issued under the provisions of this Act for any of the reasons for which he could revoke a license to operate steam engines and steam boilers.

Section 3. A license granted under the provisions of this Act shall entitle the holder thereof to operate any of the machinery named in Section 1 of this Act, and the license shall specify on its face such machinery, but no license issued hereunder shall authorize or qualify the person to whom issued to operate a steam boiler or steam engine. Any person holding a license as a first class engineer, authorizing him to operate steam boilers and steam engines, shall be deemed qualified to operate any of the engines and machinery named in Section 1 of this Act without obtaining any license under the provisions thereof. Any person holding a license as a second class engineer, authorizing him to operate steam boilers and steam engines, shall be deemed qualified to operate any of the engines and machinery mentioned in Section 1 of this Act, where the same are not over one hundred horse power capacity, without obtaining any license under the provisions thereof.

Section 4. Licenses issued under this Act shall be divided into two classes, namely, first class and second class. No person must be granted a first class license who has not taken and subscribed an oath that he has had at least three years' experience in the operation of at least one of the engines named in Section 1 of this Act, and whose

knowledge of the construction and operation is such as to justify the belief that he is competent to take charge of and operate such machinery.

No person must be granted a second class license who has not taken and subscribed an oath that he has had at least two years' experience in the operation of at least one of the engines named in Section 1 of this Act and whose knowledge of the construction and operation is such as to justify the belief that he is competent to take charge of and operate such machinery.

Section 5. Any person to whom is granted a first class license under the provisions of this Act shall be deemed qualified to operate any of the machinery or engines named in Section 1 of this Act, without regard to the horse power thereof. Any person to whom is granted a second class license under the provisions of this Act shall not be permitted to operate any of the machinery named in Section 1 thereof, of a greater capacity than one hundred (100) horse power.

Section 6. Any person who has regularly applied for a license under the provisions of this Act and has been rejected, may renew his application for such license within the time and in the manner prescribed in Section 1653, and Section 1654, of the Revised Codes of Montana.

Section 7. Every person who operates any of the engines and machinery named in Section 1 of this Act for which a license is required, without first obtaining a license as required by the provisions of this Act, and every owner, employer or manager of any such engines or machinery who knowingly permits any unlicensed person to operate the same, or any person who violates any of the provisions of this Act, shall be deemed guilty of a misdemeanor and upon conviction thereof shall be punished by a fine of not more than five hundred (\$500.00) dollars, or by imprisonment in the county jail not more than six months, or by both such fine and imprisonment.

Section 8. All Acts and parts of Acts in conflict with this Act are hereby repealed.

Section 9. This Act shall be in full force and effect from and after its passage and approval.

Approved March 8, 1915.

CHAPTER 125, LAWS OF 1913.

Section 1. The capacity or initial power of all traction engines or machinery propelled or operated by gas, oil or any product of oil, when sold or offered for sale within this State, must be computed and determined by the draw bar horse power; that is, the initial pulling power of such engines or machinery, and not otherwise; and such power or capacity shall be plainly engraved in figures with the letters H. P. on a metallic templet or plate which templet or plate shall,

before such engine or machine is sold or offered for sale, be securely fastened thereto, in such manner and place and of sufficient size as to be easily seen and read. All new engines or machinery named herein must be engraved or branded with the shop number, which shall be in some place easily observed.

Section 2. Any owner or lessee of any of the engines or machinery named in Section 1 of this Act, shall have the right to call upon the State Boiler Inspector to inspect and determine the power and capacity of such engine or machinery, and it is the duty of the Inspector to make such inspection when so requested. The fee for such inspection shall be five dollars when such engine or machinery is located within an incorporated city or town, and ten dollars when not located within any incorporated city or town, which fees shall be demanded and paid in advance, provided that the Inspector may select and determine the time of such inspection. When such inspection is completed the Inspector shall deliver to the party a certificate, showing the date of inspection, the description of engine or machinery inspected, which may be by shop number and make, and the draw bar horse power thereof, provided that the provisions of this Act shall not apply to automobiles nor to railroad locomotives.

Section 3. Any person, firm, corporation or co-partnership, or agent, who shall sell or offer for sale or shall authorize or induce any other person to sell or offer for sale any of the engines or machinery named in Section 1 of this Act, without having the same marked or labeled as provided in Section 1 of this Act, or who shall misrepresent the capacity or initial horse power or draw bar horse power of such engine or machinery shall be guilty of a misdemeanor and on conviction thereof shall be fined not less than five dollars, nor more than five hundred dollars (See Codes), or imprisoned in the county jail not more than six months, or by both such fine and imprisonment.

CHAPTER 134, LAWS 1919.

(HOUSE BILL NO. 330.)

Introduced by Jones of Phillips.

'An Act to Require Certain Employers to Make Reports to the Industrial Accident Board, Concerning Alien and Illiterate Employees, and Authorizing Said Board to Prescribe Rules and Regulations and to Fix Penalties With Reference Thereto.'

Be It Enacted by the Legislative Assembly of the State of Montana:

Section 1. It shall hereafter be the duty of every person, association or corporation employing more than fifty persons at one time, within the State of Montana, to make out and file with the Industrial Accident Board a regular quarterly report, showing the names, ages, and residence of all their employees who are not citizens of the United States, and also of all employees who do not read and speak the English language. All such reports shall be made upon printed blank forms to be furnished by the Industrial Accident Board, and shall in addition to the foregoing facts disclose the following, to-wit:

- (1) The country of which said employee is a citizen;
- (2) The period of time which said employee has resided in the United States;
- (3) The period of time which said employee has been in the service of said employer;
- (4) Whether said employee be married or single, and if married, the residence of employee's wife and family;
- (5) What steps, if any, employee has taken to become a citizen of the United States.
- (6) What steps, if any, employee has taken to familiarize himself with the English language;
- (7) Such further and additional facts and information as shall be prescribed and required by said Board.

Section 2. It shall be the duty of the Industrial Accident Board to prepare or cause to be prepared all blank printed forms that shall be necessary to comply with the provisions hereof, which said blanks shall be furnished to all said employers upon application therefor to said Industrial Accident Board.

Section 3. For the purpose of carrying out the provisions of this Act, all employers of labor are hereby designated, for the purpose of receiving the information provided for in this Act, agents and representatives of the Industrial Accident Board, and it shall be the duty of all employees of such employers to furnish to the employers, upon their request, for and on behalf of said Industrial Accident Board, all information necessary to enable the employers to make out and furnish the report or reports required by this Act. In case of the failure or refusal of any employee to furnish to his employer the information

provided for in this Act, such fact shall be reported by the employer to the Industrial Accident Board, and the Industrial Accident Board is hereby authorized and empowered to cause such employee to appear before the Industrial Accident Board, at such time and place as they may determine, and furnish the information required under the provisions of this Act.

Section 4. The Industrial Accident Board shall have full power and authority to make and prescribe all reasonable rules, regulations and to prescribe all necessary penalties, to secure a strict compliance with the provisions of this Act, and every employer or employee or other person, who shall fail or refuse to comply with the provisions of this Act, or with any rule or regulation of the Industrial Accident Board, shall be deemed guilty of a misdemeanor.

Section 5. All Acts and parts of Acts in conflict herewith are hereby repealed.

Section 6. This Act shall be in full force and effect from and after its passage and approval.

RONALD HIGGINS,

Speaker Pro-tem of the House.

W. W. McDOWELL,

President of the Senate.

Approved March 5, 1919.

S. V. STEWART, Governor.

Filed March 6, 1919.

C. T. STEWART, Secretary of State.

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